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VOL ISS 47TH
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Forty-Seventh
Federal-Provincial
Wildlife Conference

TRANSACTIONS
1983

Edmonton, Alberta
28 June – 1 July

85-0062/

DATES, SITES AND THEMES FOR FEDERAL-PROVINCIAL WILDLIFE CONFERENCES

1922-1954	Ottawa, Ontario
1955	Montreal, Quebec
1956	Vancouver, British Columbia
1957	Ottawa, Ontario
1958	St. John's, Newfoundland
1959	Ottawa, Ontario
1960	Regina, Saskatchewan
1961	Ottawa, Ontario
1962	Fredericton, New Brunswick
1963	Ottawa, Ontario
1964	Charlottetown, Prince Edward Island
1965	Winnipeg, Manitoba
1966	Quebec, Quebec
1967	Ottawa, Ontario
1968	Whitehorse, Yukon Territory
1969	Edmonton, Alberta
1970	Yellowknife, Northwest Territories
1971	Toronto, Ontario
1972	Dartmouth, Nova Scotia
1973	Ottawa, Ontario
1974	Victoria, British Columbia (People and wildlife)
1975	St. John's, Newfoundland (Wildlife values)
1976	Fredericton, New Brunswick (Federal-provincial initiatives in wildlife management)
1977	Winnipeg, Manitoba (Wildlife enforcement in Canada)
1978	Quebec, Quebec (Use of wildlife)
1979	Regina, Saskatchewan (Habitat is the key)
1980	Ottawa, Ontario (A national policy on wildlife)
1981	Charlottetown, Prince Edward Island (A national policy on wildlife - Phase II)
1982	Whitehorse, Yukon Territory (Wildlife in Canada's North)
1983	Edmonton, Alberta (Wildlife management - Today and tomorrow)
1984	Timmins, Ontario (Teamwork in wildlife management)
1985	Halifax, Nova Scotia
1986	Ottawa, Ontario

Environment Canada
Canadian Wildlife Service

Environnement Canada
Service canadien de la faune

Issued under the authority of the
Minister of the Environment

Canadian Wildlife Service

© Minister of Supply and Services Canada 1983
Catalogue No. CW69-3/47E
ISBN 0-662-12898-2
ISSN 0069-0007

Printing: LES ATELIERS GRAPHIQUES MARC VEILLEUX
Contract No. KN107-3-0796

Transactions of the
Forty-seventh Federal-Provincial Wildlife Conference
held in Edmonton, Alberta
28 June-1 July
1983

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OFFICIAL WELCOME

The Hon. Don Sparrow
Associate Minister,
Public Lands and Wildlife,
Alberta Department of Energy and Natural Resources

On behalf of the Government of Alberta and, in particular, the Department of Energy and Natural Resources, I would like to extend to you a sincere welcome to Alberta, and to our fine city of Edmonton, for this your 47th annual Federal-Provincial Wildlife Conference.

From a brief review of your conference theme, "Wildlife management - Today and tomorrow" and the agenda topics, I believe that you can anticipate some interesting and productive discussions. I am particularly pleased to see the initiative taken to deal with the review of our efforts in wildlife management within the context of the current and foreseeable global economic climate. We will simply have to do a more effective job of factoring wildlife resource interest into the socio-economic fabric of this country. This challenge, in the main, will be left up to you to achieve.

In October 1982, a new "Fish and wildlife policy" was adopted and published. The policy provides for a direction respecting the Alberta government's responsibilities to the resource and how society may benefit through its use.

Another new document, a "Fish and wildlife resource plan for Alberta", is nearly completed, which establishes the use, and examines what today's situation means in terms of the past and the future. The future is examined in terms of what the implications are if present trends continue or if, through management, the same experience is provided that people are enjoying today.

A new Wildlife Act is being prepared to enable the implementation of the wildlife policy. It is anticipated that the new act will be introduced in the fall session of this legislature.

Alberta and Ducks Unlimited Canada signed a major "Wetlands conservation agreement" in June of 1982. The agreement spans some 10 years, with 5-year extensions. If mutually agreed to, the intent is to undertake joint development of some 20 key wetland areas that have special values and management potential. Ducks Unlimited Canada will bear most of the capital construction, and Alberta will secure the land, including acquiring private lands.

In closing, as host of this conference, I extend to you my best wishes in having a most successful and enjoyable meeting. I note that your agenda is interspersed with the occasional social activity that I know will add a pleasant touch to the event. Unfortunately, my schedule does not allow me to attend these functions. I thank you, once again, for this opportunity to welcome you to our fine province, and I extend to you all the possible assistance that I or my department can give you to make your stay a very enjoyable one.

REPORT ON ACTION TAKEN ON RECOMMENDATIONS OF THE
46TH FEDERAL-PROVINCIAL WILDLIFE CONFERENCE

D.K. Pollock

Recommendation No. 1 (Appreciation for hospitality)

That the conference express its appreciation to the Yukon Department of Renewable Resources, to the Hon. Dan Lang, and to Don Hutton and his staff for the barbecue held on 2 June 1982, and the other excellent arrangements and hospitality extended to the delegates, guests, and families of the 46th Federal-Provincial Wildlife Conference.

Action

Letters of appreciation were sent to the Hon. Dan Lang and Don Hutton. Action completed.

Recommendation No. 2 (Thanks for reception)

That the conference express its thanks to the Canadian Wildlife Service for the reception held on 31 May 1982.

Action

Thank-you memorandum sent to B. Tétreault. Action completed.

Recommendation No. 3 (Thanks for social event)

That the conference express its thanks to the Canadian Wildlife Federation and the Yukon Department of Renewable Resources for co-hosting the excellent dinner and entertainment on the evening of 3 June 1982, at the Ski Chalet.

Action

Thank-you letters sent to K. Brynaert and Don Hutton. Action completed.

Recommendation No. 4 (Thanks for breakfast)

That the conference express its thanks to Ducks Unlimited Canada for hosting the sourdough pancake breakfast on 2 June 1982.

Action

Thank-you letter sent to Stew Morrison. Action completed.

Recommendation No. 5 (Appreciation to non-governmental organizations)

That the conference acknowledge its appreciation to the non-governmental organizations' (NGOs') attendees who participated in the 46th conference.

Action

Letters of appreciation sent to all NGOs' attendees who participated in the conference. Action completed.

Recommendation No. 6 (Regret for absence of Quebec and Nova Scotia)

That the conference acknowledge with regret the absence of representation of the provincial governments of Nova Scotia and Quebec.

Action

Letters of regret sent to Nova Scotia and Quebec. Action completed.

Recommendation No. 7 (Endrin)

Whereas the use of the pesticide Endrin in Montana in 1981 and several other western states resulted in high levels in migratory birds, and

whereas these birds are a shared international resource, and

whereas warning the public about possible hazards of eating contaminated waterfowl resulted in substantially reduced tourism and recreation in parts of Canada, and

whereas assurances have not been received that this situation will not be repeated,

therefore it is recommended that the Government of Canada express the concern of the Federal-Provincial Wildlife Conference over the use of Endrin in the United States, which affects the use of migratory birds in Canada.

Action

A letter was sent to R. MacLennan, Saskatchewan, the initiator of the recommendation, requesting "proper documentation", so that CWS could take action on the recommendation. In his reply, Mr. MacLennan stated:

> Two problems exist in this data, first, contrary to my report in Whitehorse, non-resident hunters remained relatively stable at about 3500. Secondly, it is important to determine how much of the drop of resident hunting was caused by Endrin and how much by low water and duck numbers.
>
> Based on the phone calls and comments we received, there is no doubt that Endrin played a significant role in this decrease.
>
> I appreciate the difficulty CWS would have trying to present a formal protest based on this type of information ... I also have been updated on the actions

of CWS representatives regarding Endrin at US flyway meetings and feel more confident that the message has been received.

No further action necessary.

Recommendation No. 8 (Polar bears)

The conference applauds the Canadian Wildlife Service for its foresight and leadership in polar bear research and its valuable role in co-ordinating provincial and territorial management programs. The conference firmly supports the Canadian Wildlife Service in their on-going and valuable presence in the field of polar-bear research and management.

Action

Memorandum sent to B. Tétreault applauding CWS for its efforts in polar-bear research and management. Action completed.

Recommendation No. 9 (Forest-wildlife symposium)

Whereas the 45th Federal-Provincial Wildlife Conference called for a proposal for a symposium to facilitate the exchange of management and research information amongst forest and wildlife managers, and

whereas the proposal thus prepared by a steering committee has presented an option acceptable to the conference and widely supported by foresters and wildlife managers,

therefore it is recommended that:

(1) delegates to the conference support such a symposium in Canada in the spring of 1984;

(2) the symposium be focused on the integration of forest and wildlife management;

(3) the papers be solicited from recognized experts inside and outside Canada and be published;

(4) attendance be open;

(5) the existing committee will select an organizing committee representing foresters and biologists throughout Canada from federal, provincial, territorial governments, and other appropriate non-governmental organizations, as well as representatives of the forest industry and the academic community; and

(6) the committee seek the required funding from participating governments, the forest industry, and non-governmental organizations.

Action

(1) A national Forestry and Wildlife Management Symposium is now scheduled for 7-10 May 1984 at the University of British Columbia.

(2) The symposium's theme is that the management of the forest for wood products and wildlife can be better integrated with benefits to all users of forest resources. The program will address such subjects as the legal basis for integrated resource management, the implementation process in various jurisdictions, the needs of resource users, and means of solving problems inhibiting integration.

(3) The program has been planned and knowledgeable speakers have been identified and approached; of 23 contacted, 19 have accepted to date. The Canadian Institute of Forestry has agreed, pending final approval by its directors, to publish the papers in the "Forestry chronicle".

(4) The symposium is aimed at forest resource administrators and managers, and will emphasize the participation of field foresters and biologists. Accommodation for approximately 300 participants has been reserved at UBC. Pre-registration information will be mailed to wildlife agencies by mid July 1983.

(5) The symposium is being planned by a committee with membership from the University of British Columbia, the BC Council of Forest Industries, and the forestry and wildlife agencies of British Columbia, Ontario, New Brunswick, and Environment Canada. The Canadian Wildlife Federation has agreed to undertake treasurer and publicity roles, and to aid in soliciting financial contributions. The Canadian Forestry Association has agreed to seek financial contributions and help with publicity.

(6) The symposium will be hosted by the BC ministries of Forests and Environment. Sponsorship is being sought from participating agencies and organizations and from associations of forest resource managers and users. It is anticipated that small donations from a large number of sources will cover most costs. To encourage attendance, the registration fee will be low (under $30).

(7) Wildlife agencies and organizations will receive announcements and pre-registration forms before 30 July. A program description will be available at the Federal-Provincial Wildlife Conference. Some organizing committee members will be available at the conference to discuss details if required. Action on-going.

Recommendation No. 10 (National Wildlife Week)

The conference recommends:

(1) that individual jurisdictions, led by a three-member Task Force, review and evaluate National Wildlife Week, including the efficiency of delivery systems and effective use of materials generated by the Canadian Wildlife Federation,

(2) that, as part of such an evaluation, a workshop on National Wildlife Week be held during the 47th Federal-Provincial Wildlife Conference; and

(3) that this review involve the organizational staff directly responsible for National Wildlife Week in their respective jurisdictions.

Note: Task Force members--Manitoba, Ted Muir; Newfoundland, Denis Minty; Ontario, Laurel Whistance-Smith. Alternate - British Columbia, Rod Cameron.

Action

Questionnaire circulated by the Task Force. Replies were to be returned to Laurel Whistance-Smith by 20 May for compilation prior to the conference. Workshop to be held at the conference on Thursday morning, 30 June. Action on-going.

Recommendation No. 11 (National Wildlife Week theme)

It is recommended that the theme of National Wildlife Week in 1983 be "Learning about wildlife", and the supportive material be concerned with current and/or future management activities.

Action

Letter sent to K. Brynaert confirming the delegates' unanimous support of this recommendation. Action completed.

Recommendation No. 12 (Federal-Provincial Wildlife Conference)

Whereas the Federal-Provincial Wildlife Conference has evolved from a government forum to one including both government and public, and

whereas there is opportunity for government consultation and co-ordination through the Wildlife Directors' Sub-committees and Advisory Committees, and the Wildlife Ministers' Conference, and there is limited opportunity for public input into the management and administration of wildlife in Canada.

therefore it is recommended that a three-person Task Force, comprised of one representative from the Canadian Wildlife Service, the Province of Alberta, and the Canadian Wildlife Federation prepare, prior to the 47th Federal-Provincial Conference, a review of the organization of the conference, especially with a view to increasing the role of private individuals and organizations in the conference and proposing terms of reference.

Action

Committee composed of Bob Andrews and Ron Weatherill (Alberta), Ken Brynaert and Lloyd Libke (Canadian Wildlife Federation), and Joe Bryant (CWS) met 7 April 1983 to draft a proposal to be presented to the conference. To be discussed Thursday, 30 June. Action on-going.

Recommendation No. 13 (Habitat guidelines)

Whereas the 46th conference acknowledges and supports the efforts that have been made towards developing "An approach to manage wildlife habitat in Canada", and

whereas the current momentum should not be lost,

therefore it is recommended that the Task Force that has been established meet to debate, review, and refine the present document tabled at the 46th Federal-Provincial Wildlife Conference, and to continue development of approaches for habitat protection which could be implemented by the various levels of government, or by the private sector, independently or jointly with government, and

that the Task Force report back to the delegates before next year's conference.

Action

Canvassed all provinces and territories as to the substance of the last report. However, some jurisdictions have been slow to respond. There will be a report tabled at the conference.

Recommendation No. 14 ("Wildlife strategy for Canada")

Whereas the February 1982 draft "Wildlife strategy for Canada" now incorporates the substantive changes to the previous draft requested in writing by representatives of ministers of each province and territory, and

whereas the February 1982 draft is already in the process of review by ministers responsible for wildlife and by other departments in a number of governments, in preparation for discussion by wildlife ministers at their planned meeting in autumn 1982,

therefore be it recommended that any further proposed changes to the "Wildlife strategy for Canada" be in the hands of the Chairman of the Steering Committee, with copies to other jurisdictions, by 1 July 1982.

Note: Ontario opposed

Action

Final text of "Guidelines for wildlife policy in Canada" was approved by the Wildlife Ministers' Conference of 30 September 1982. The guidelines were printed and distributed to wildlife agencies in the spring of 1983. The Steering Committee has completed its task. Tony Keith's final report was distributed in June. The conference is committed to an evaluation of the "Guidelines" in 1988. Action on-going.

Recommendation No. 15 (Fur Institute of Canada)

Whereas the Task Force established under Recommendation 11 of the 1981 Federal-Provincial Wildlife Conference has essentially completed its mandate, and

whereas there is general agreement in principle among official delegates to the 1982 conference to adopt and implement that report, subject to ministerial approval and to minor legal changes in the "Articles of incorporation", and

whereas there is a need to proceed promptly with establishment of the Fur Institute of Canada,

therefore it is recommended that the Task Force established under Recommendation 11 of the 1981 conference:

(1) modify the "Articles of incorporation" as needed to meet legal requirements and adjustments recommended by the various wildlife jurisdictions across Canada, provided these are within the spirit and intent of the present Fur Institute of Canada proposal;

(2) secure funding commitments for the Fur Institute of Canada generally consistent with the sharing formulas as set forth in the report to the 1982 conference; and

(3) establish the institute, using the current Task Force members as "applicants", with the aim of having the institute operational before 31 December 1982.

Note: Saskatchewan opposed.

Action

The Task Force has completed its mandate and the chairman, Rich Goulden, will be reporting to the conference on Tuesday morning, 28 June. Action on-going.

Recommendation No. 16 (Value of wildlife in the North)

Whereas the 1982 national survey of values associated with wildlife will be a valuable aid to resource managers and the public at large, but will not fully assess the value of wildlife resources in northern Canada, particularly the value of this resource, which is crucial to northern native people,

therefore the conference recommends that a small working group determine the feasibility of a complementary survey to the current national survey to estimate the value of wildlife resources of northern Canada, and present a report to the Wildlife Directors' Subcommittee in advance of the next conference.

Note: Members of working group--Saskatchewan, Wayne Pepper; Northwest Territories, Hugh Monaghan; Yukon Territory, Michael Hawkes; Canadian Wildlife Service, Fern Filion; World Wildlife Fund Canada, Monte Hummel.

Action

The working group was asked to determine the feasibility of a complementary survey to the current national survey to estimate the value of wildlife resources of northern Canada. CWS prepared the terms of reference for and arranged a service contract with Dr. Peter Usher for his independent recommendations on the matter. This contract was paid for by the Northwest Territories. A feasibility study report is being presented to the Wildlife Directors' Committee meeting in advance of the 1983 Federal-Provincial Wildlife Conference. Action on-going.

Recommendation No. 17 (Canadian Committee on Ungulate Management)

Whereas the main purpose of the Canadian Committee on Ungulate Management is to advise wildlife policy developers on future options and trends of significance for the management of ungulates in Canada, and performs a valuable function,

therefore it is recommended that the Federal-Provincial Wildlife Conference support the continuation of the committee under revised terms of reference.

Note: British Columbia volunteered to provide a draft of the revised terms of reference.

Action

The committee was advised of the delegates' unanimous decision to support the continuation of the committee. Action completed.

Recommendation No. 18 (COSEWIC)

Whereas the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has been in operation for 5 years, and a review of its work is timely, and

whereas funds for preparing COSEWIC status reports are urgently required,

therefore it is recommended that:

(1) the chairman of COSEWIC arrange an audit of COSEWIC activities since inception, in terms of attendance at meetings, responses to postal votes, actions decided, preparation of status reports, a financial report, etc., to be presented to a joint meeting of eastern and western wildlife directors, and

(2) that all government jurisdictions be encouraged to contribute to the costs of preparation of COSEWIC status reports, especially since the World Wildlife Fund Canada has agreed to contribute matching funds up to a pre-established limit in 1982, 1983, and 1984.

Action

(1) In response to this recommendation, the chairman, executive and members of COSEWIC did an accounting of the first 5 years of committee work. A draft was circulated late in 1982 and the final version was mailed out in June 1983.

(2) World Wildlife Fund (WWF) offered to match each dollar raised by jurisdictions for the production of status reports up to yearly limits of $20 000 in 1982, $15 000 in 1983, and $10 000 in 1984. At present, COSEWIC is using the 2nd year's allotment of $15 000 which, when matched, amounts of $30 000 during the current year. Under this arrangement, the total amount over 3 years available for the production of status reports is $90 000, if jurisdictions are able to raise the money needed to call forth the full WWF Canada pledge. The process of raising money from members to call forth the full 2nd year's matching grant from WWF Canada is underway at the time of writing. Action on-going.

Recommendation No. 19 (Wildlife Education)

Whereas the conference recognizes and appreciates the progress in wildlife education made by the Canadian Wildlife Federation during National Wildlife Week, but acknowledges the need for an extension of educational inputs on a continuing basis,

therefore it is recommended that the Canadian Wildlife Federal be encouraged to proceed with the proposal for a "National Wildlife Education Project" for presentation to the 47th conference.

Action

Letter of encouragement sent to K. Brynaert. Proposal to be presented to the conference on Tuesday morning, 28 June. Action on-going.

Update report

US FISH AND WILDLIFE SERVICE

F.E. Hester
Deputy Director

Once again, it is an honour and a pleasure for me to represent the US Fish and Wildlife Service (USFWS) at this important gathering. Though representatives of our agencies meet at a number of conferences and technical sessions throughout the year, this event signifies something more than just an annual meeting for us. For the USFWS, it represents an opportunity to share with you what we feel are our worthy achievements in resource management for the preceding 12-month period. And we try candidly to assess our areas of concern and how improvement can be effected. In sum, this serves as something of a report-card for us--how we managed our portion of the North American land mass during the past year.

I will begin by noting that we have made some very heartening progress towards our resource goals. And I will add that progress was made despite some fiscal restraints that had at first appeared quite formidable. We were able to reduce our overall agency budget and maintain, and in some areas increase, our effectiveness. I attribute this both to the skill and dedication of our employees, and to the flexibility and professionalism of our planning capability.

I believe the USFWS has weathered its fiscal changes very well indeed; and throughout a rather trying period of budget and priority reassessment, it has been able to perform consistently and productively.

Changed goals

Before recounting some of the more important highlights of the past year, I would like to note that we effected a number of changes in our policy goals in recent months, primarily in the realm of fish and wildlife policy and inland fisheries management.

First, regarding departmental policy on fish and wildlife resources, the Secretary issued a policy clarification in March of this year to update the 1971 policy initiated by former Secretary Hickel. The revised policy not only clarifies authorities and responsibilities of the states and federal government in the stewardship of fish and wildlife, it also reaffirms the basic role of the states in managing their resident fish and wildlife. The need for the policy revision was clear. Throughout the past decade, there had been a number of new federal initiatives in the United States regarding wildlife that had left many state roles and state-related issues largely unaddressed. This new policy has already received strong support from the state fish and wildlife agencies, and it has done much to eliminate some of the confusion regarding appropriate federal and state roles in wildlife resource matters. Moreover, the policy promotes new opportunities for state/federal co-operation, so that state ideas and input can be effectively organized into long-term management planning.

In the area of fisheries management and priorities, we have undertaken some decisive moves. We have transferred a number of fish hatcheries to states; we

have discontinued our reservoir research program and some of our fishery assistance stations. While these changes were based in part on budget considerations, they more fully reflect the philosophical change that states should have greater responsibility for fisheries where there is not a clear federal mandate or need. A case in point would be the closure or transfer of some of the national fish hatcheries. Many of these facilities were producing fish primarily for state-managed waters, or for state fishery needs. We could not quarrel with the significant sport-fishery value of these endeavours, nor the overall contributions to the public good. But it did seem to us far more appropriate that these facilities be under state support and management if the states were the primary beneficiaries. Obviously, such a major program re-emphasis is not always received with unanimous support by the states. But many were eager to negotiate transfer, and quite a few facilities are now wholly under state control.

Our fisheries programs have been re-designed, if you will, to address matters that are clearly in the federal realm. We are continuing efforts on behalf of endangered fishes; we are carrying forward with our fishery management efforts on federal lands, such as national parks, military bases, Indian reservations, and national wildlife refuges--where, in fact, we are working to increase recreational fishing in utilizing co-operative funding with the benefiting organizations. We are continuing our research on fish nutrition, diseases, and genetics, as well as on environmental contaminants and on ecosystem relationships. Our new fishery policy will also address fishery issues of large scope, such as our efforts to maintain and replenish anadromous fish stocks, and, of course, our co-operative efforts with you on the Great Lakes.

To be sure, the fisheries program has witnessed some of the most dramatic changes in the past year. I would characterize the changes as efforts to define more clearly the appropriate federal role and concurrently allow states greater flexibility and responsibility in fishery management matters. As I am sure many of you are aware, the present Administration in the United States seeks to advance the role of state agencies in resource management matters. We feel we have made important strides to that end. Moreover, in our support for expanded federal aid grants to states for their fishery efforts, we feel that we have given the clear signal that we recognize the fiscal pressures that they have had to operate under in recent years, and that we support efforts to increase their funding base so that their goals and prerogatives can proceed.

Continuing on this theme of state-federal co-operation, we have further streamlined our planning processes so that the states are now required to do far less paperwork than previously for reporting their federal aid projects. Several states have elected a multi-year planning option that we have offered. In this way, their planning flexibility is further increased.

During the past year, the USFWS issued the complete findings of the "1980 National survey of fishing, hunting, and wildlife-associated recreation", conducted in co-operation with the US Census Bureau. The survey results show that fishing continues to be the number-one outdoor pursuit for most US citizens. Hunting showed some growth as well, but at a lower rate. The total dollar amounts spent were perhaps the most dramatic indication of how US citizens value their outdoor pastimes; total expenditures climbed above the $41-billion mark. One statistic that intrigues many is the fact that Americans now spend nearly $500 million on feeding birds and other wildlife. All of the data generated during the survey are offered to the states. In fact, each state receives a summary highlighting

outdoor data on their citizens. This has proven to be quite a valuable planning tool to many state resource administrators.

I should like to turn now to some other interesting and important accomplishments of the USFWS last year--with particular emphasis on areas of mutual concern and co-operation with Canada.

Some fishery highlights

Great Lakes

Domestic efforts

We have consolidated our lake trout broodstock at our new Iron River National Fish Hatchery. We have begun initial production there and expect to produce about 3 million yearling lake trout there annually, when in full production.

We anticipate that our yearling lake trout production for distribution in the Great Lakes will approach nine million fish in the next couple of years.

Joint efforts

Our sea-lamprey control effort is now in its 24th year, and shows continuing progress.

Through the strategic plan for management of Great Lakes fisheries, we witnessed this year the development and acceptance of a joint plan for the rehabilitation of lake trout in Lake Ontario, entered into by the USFWS, New York, and Ontario.

Atlantic salmon

Domestic efforts

Fish passage ways on the Connecticut River have opened 225 km for Atlantic salmon use. Next year, we anticipate that fish passage facilities at Bellows Falls Dam will open access to an additional 130 km (355 km total) of habitat, including the White River.

Our kelt reconditioning program is successfully providing additional mature spawning stock for our hatchery production.

We had a record return of Atlantic salmon to anglers on the Penobscot River in Maine in 1982, while total landings matched those of 1981 (1188 vs. 1190).

We are very pleased with our initial returns of adults to the Merrimack, Pawcatuck, and Connecticut rivers this year. Although the numbers are small, keep in mind that Atlantic salmon were absent from these rivers for nearly 150 years.

Joint efforts

We have participated in the "North Atlantic salmon convention" organization, have continued to exchange data and techniques, and still have production of anadromous salmonids as one of our highest priorities.

Pacific salmon

Domestic efforts

We are continuing our coast-wide smolt tagging efforts to monitor migration, harvest, and production.

We are achieving, albeit slowly, greater control over the offshore salmon fisheries.

We think we can discern an increase in adult escapement in the Upper Columbia River, which may correlate with the brief closed season British Columbia provided last year.

We are initiating evaluation procedures on our west coast hatcheries that will help us better to understand the impact of our hatchery production.

Joint efforts

We have agreement in principle at the scientific level on issues in the proposed "treaty on Pacific salmon". We look forward to acceptance by our respective governments, so that we may proceed with the work that must be done.

Waterfowl management

I would now like to shift our focus to waterfowl--to five areas where we have strong mutual interests.

Evaluating stabilized duck hunting regulations

In 1979, a 5-year program of stabilized duck hunting regulations was initiated in Alberta, Saskatchewan, and Manitoba. In 1980, the USFWS, with support from the flyway councils and other organizations, joined Canada in this program. Duck-season lengths and bag limits were stabilized at the 1979-80 hunting season level for a 5-year period, beginning with the 1980-81 season. The immediate goal of the program is to develop, implement, and evaluate a strategy for duck harvest management. The long-term goal is to identify management steps that may be necessary to maintain North American duck populations.

Since 1981, co-operative US-Canadian studies, primarily on the Mallard, have been directed at evaluating the relationship between duck populations and duck harvests continentally in the absence of annual changes in season lengths or bag limits. Six major topics are being investigated:

(1) breeding population size and productivity,

(2) hunters' activity and success,

(3) factors affecting hunters' activity and success,

(4) annual and seasonal survival rates of Mallards,

(5) breeding habitat inventory and evaluation,

(6) recruitment rates and factors affecting them.

Routine information on breeding-population size and distribution, the production of young, and duck harvest and hunters' activity continue to be gathered in operational Canadian and US surveys. Fall duck population levels along key migration corridors and weather data are being evaluated to understand better the timing and extent of duck migration, and the subsequent effect on hunters' activity and success. Banding to measure annual and seasonal survival rates of Mallards is in its third field season. The radio-telemetry program, initiated in 1982 to assess non-hunting mortality of Mallards on key wintering areas, will be expanded this year. High resolution, colour/infra-red photography will again be taken on nearly 100 plots in Montana, the Dakotas, and the Prairie Provinces to provide a detailed assessment of the number of wetlands available each year as well as the seasonal changes in these habitats. Finally, intensive breeding-population and brood surveys and an expanded nest-success study in Canada will provide important information on duck production and the factors influencing productivity.

Waterfowl management plans

A "National waterfowl management plan" for the United States was completed in March 1982. We understand that a Canadian plan will be in place shortly. When that has been done, Canadian and US officials can begin to address a North American plan for waterfowl management, identifying problems of mutual concern and developing co-operative strategies within agreed policies. The North American plan should dwell in some measure on the problems associated with populations, habitat preservation, and use of this important shared resource. We look forward to working with Bert Tétreault and his staff (CWS) to develop a draft document. In the near future, we hope CWS and the USFWS can work with Mexico's federal wildlife agency to assure a truly continental perspective.

Good progress is being made in the United States to implement our domestic management plans. Our states, through the four waterfowl flyway councils, and the USFWS have expended a good deal of effort to develop co-operative species and population management plans. More than 30 of these planning documents are either in preparation or have been completed. Where the needs exists, goals have been identified for manageable groups of waterfowl, and strategies jointly developed. To ensure that it meets its commitments, the USFWS has drawn upon its regional resource planning system to fix responsibilities and lay out specific tasks.

Subsistence hunting

On 30 January 1979, the Secretary of the Interior and the Minister of the Environment signed a protocol to amend the subsistence hunting provisions of the "1916 Convention for the protection of migratory birds". This was part of a long-term effort to provide a basis for regulation and control of subsistence harvest of the USA and Canada.

Ratification of the protocol in the USA has been delayed because a number of organizations and individuals expressed concern about how subsistence hunting would be regulated under provisions of the amendment. As a result, it was proposed that the USA and Canada develop an agreement that would specify in more detail how the protocol would be interpreted and implemented.

Recently, the USFWS notified the American public that it plans to develop an agreement with Canada, and invited public comments. The comments are now being reviewed, and we hope to soon begin discussions with CWS.

Black Duck

There has been a gradual, significant decline in Black Duck populations over the past 25 years. The reasons are unclear, but habitat loss, hybridization with Mallards, and possibly over-harvest are contributing factors. The USFWS is proposing for public comment further restrictions on the taking of Black Ducks in the 1983 hunting season. States of the Atlantic Flyway have developed proposals designed to reduce the harvest of Black Ducks by about 25% in 1983. States of the Mississippi Flyway have also proposed harvest restrictions on Black Ducks in 1983. Joint federal-state hunters' information programs are being developed to inform hunters about the decline in Black Ducks, explain the hunting restrictions being imposed, and request hunters' co-operation and assistance.

We are not certain that the added restriction on hunting of Black Ducks will halt the downward population trend, but we do believe that this is a logical first step as we explore what can be done to help a very popular game bird in the north-eastern states and eastern Canada.

One of the most difficult aspects of harvest management for Black Ducks relates to the similarity in appearance of this species and the Mallard. The states and the USFWS are preparing a leaflet which gives hunters tips on how to distinguish Black Ducks in the field. Also, some motion-picture film and slides on this subject will be made available. Few hunting regulations changes in recent years have required as much hunters' co-operation and understanding as this change.

In the fall of 1982, regulations for the taking of Black Ducks were challenged in the Federal District Court of Washington, DC. This challenge came from the Humane Society of the United States, who demanded that the hunting season on Black Ducks be closed throughout the United States. That court, and later an appeals court, ruled that closure of the hunting season on Black Ducks was not necessary, but both courts were aware of our plans to further restrict the taking of this species. This subject will be receiving a good deal of attention over the next few years. We view it as a very important matter, and we want to work in close co-operation with Canada in developing appropriate management programs.

Wetland preservation

Wetlands have assumed increased significance during the past decade, as the public has begun to understand the great variety of values and benefits wetlands contribute. In spite of this, we continue to lose wetlands at a disturbing rate. In 1982, the USFWS completed a study to determine wetland losses since the mid 1950s. During the 20-year period from the mid 1950s to the mid 1970s, there was a net loss of about 3.6 million ha of wetlands in the lower 48 states. This was from a base of 43.8 million ha, which itself represented a significant decrease from the wetlands that existed at the time of settlement by Europeans. More than half this 20-year loss was of forested wetlands, primarily in the lower Mississippi River region. Most of the rest was loss of inland marshes and wet meadows. Coastal marshes suffered the least loss, mainly because of stringent protective regulations established by many coastal states.

As a preservation strategy, the purchase of wetlands by federal and state agencies continues to be important, but as the economic value of land increases, the amount that can be preserved by this means has decreased sharply. As a result, a variety of other preservation methods are being explored. For example, a recent law prohibits federal financial support of development on coastal barrier islands. Landowners in the State of Minnesota can now obtain property tax credits for leaving wetlands undisturbed. Leases and agreements with landowners sometimes are more easily obtained than outright purchase of wetlands. These leases and agreements assume many forms. The Water Bank program administered by the Department of Agriculture is an example; wetlands and adjacent uplands are leased from farmers for 10-year intervals and planted to suitable wildlife cover.

The USFWS leases small wetlands in perpetuity. These are called "Waterfowl production areas". Funding of this effort comes from the sale of "Migratory bird hunting and conservation stamps". In addition, $145 million from a loan on future sales of these stamps has been used since 1961. In September 1983, authority for this loan expires. The current legislative session of the United States Congress is an important one for wetlands preservation, because some form of new legislation is essential.

Two bills on this subject have been introduced in recent weeks. Both provide new and innovative approaches to the preservation of wetlands. The bills are entitled, Protect our Wetland and Duck Resources (POWDR) and the Emergency Wetlands Resources Act. Both bills provide new funding or augment duck stamp sales. In each case, the dollar amounts should exceed former levels of funding. It is too early to predict the final form of these bills, but both represent a renewed and strengthened United States commitment to wetlands preservation.

In addition to its legislative goals, I might note that the POWDR effort, expecially, reflects the Administration's goals for enlisting strong private and corporate involvement for wetland conservation. Now in its second year, the overall POWDR initiative has already provided some excellent ideas and leadership in support of long-term wetland protection.

In conclusion, I would like to mention only one more effort regarding migratory species--in this instance, the symbol of my nation, the Bald Eagle. As I am sure many of you are aware, special agents of the USFWS Law Enforcement Division, 3 weeks ago, concluded a major investigation on the illegal killing of Bald Eagles and the marketing of eagle artifacts. The Secretary of the Interior, in announcing this major under-cover law enforcement operation, pointed out that it was the type of violation we simply could not tolerate. Seven individuals were arrested, with warrants issued for 50 more. It is believed that these violators were responsible for the illegal killing of more than 150 Bald Eagles. We are quite satisfied that major investigative efforts such as this will go a long way to halt much of the commercial activity involving eagles. And we think this effort indicates well our commitment not only to protect our national symbol, but to safeguard a bird that is, after all, a resident of Canada too. In sum, we will do our utmost to serve the resources we hold in trust for the mutual benefit of both our nations; and I look forward to our continuing co-operation.

Update report

CANADIAN WILDLIFE SERVICE

B. Tétreault
Director General

When I spoke to you a year ago in Whitehorse, I was very much a new boy on the block--even though I was from the neighbourhood. I had met a few of you and I promised to meet and be available to all of you. I think I have fulfilled that promise, and I want to thank you all for facilitating that process.

My meetings with you have all been productive. Your concerns and your advice have been important to us in CWS. And direct communication with you has helped us to accelerate decisions and avoid misunderstandings.

Wildlife management

For CWS it has been a very busy, yet rewarding, year. I told you last year that we were creating a Task Force to provide a new concept for federal wildlife management. The members were Pierre Desmeules, Jim Foley, and Gaston Moisan. They have now sent copies of their proposal to those of you who were consulted, and we would appreciate hearing your reaction, perhaps while we are together here this week.

My directors have reviewed it and we have noted the following points.

(1) The major focus is that there should be a re-assessment of the roles and responsibilities for wildlife with other levels of government.

(2) These should be based on the different values given to wildlife rather than on sharing of species. We fully recognize that economic, cultural, or ecosystem values have very different meanings from regional, provincial, territorial, national, and international viewpoints.

(3) It was also proposed that CWS expand the definition of wildlife to include all non-domestic plants.

We shall be taking a hard look at all of the implications, because they affect our provincial partners as well as CWS. It could lead to a "Federal wildlife policy", with new working relationships with all of our partners.

This may mean accepting basic changes to our present activities and responsibilities. Therefore, we are eagerly awaiting your comments regarding the proposal. Reviewing our roles and responsibilities was a top priority for us in 1982 and 1983, and remains one. The motivation, put quite simply, is to get better value for every dollar we spend.

In the North

Last year, the theme of our conference was "Wildlife in the North", and I suggested then that wildlife managers would have to make great efforts to

eliminate the ill-effects on wildlife of the hunt for gas and oil. In fact, the economic situation gave us some respite during the year, but as the economy turns around the pressure will be likely to start to grow again.

For our part, we participated in the new Caribou Management Board, participated in basic caribou research with the Northwest Territories, and studied calf mortality and the effects of fire on winter range. We continued to collect data on migratory birds on the Beaufort Sea coast. This year we are studying birds around Stokes Point and the Slave River delta, where developers and conservationists are in disagreement.

Most important in the North, Parks Canada and CWS have started work on a concise action plan to protect natural areas north of 60°. We are hopeful that the governments of the Northwest Territories and the Yukon will join us in this plan.

International scene

On the international front, we have been most active. You may have read of our success in defeating a West German proposal to add all earless seals to Appendix II of the Convention on International Trade in Endangered Species (CITES). That was deemed most newsworthy by the press, but our CITES conference in Botswana in April accomplished much more than that. And I would like to thank Bill Munro of British Columbia for his most able work in representing provincial and territorial concerns. His excellent summary on the development of humane traps in Canada was most helpful too. And a proposal to ban the trade in CITES species caught by leg-hold traps was defeated, deemed to be outside CITES' purview.

Five of our proposals at Botswana to change the status of Canadian species were carried, and three whole populations were given more protection under Appendix I. The provinces and territories have already been sent a detailed report on the CITES conference.

Still on the international scene, we funded several Latin-American projects, as follows.

- We have been able to assist financially in wetland classification in Central and South America.

- Two CWS biologists helped Brazil to set up three permanent banding stations, demonstrating netting techniques.

- We were contributors to a Spanish version of "Wildlife management techniques", which will have long-term benefits for wildlife conservation. (In Latin America, there are no Spanish wildlife manuals).

- And this year in Latin America we will continue to: evaluate wetlands, analyze species for toxic chemical levels, and assess the effects of hunters on migratory birds.

Waterfowl plan

Back home, we have been working assiduously to draft a "Canadian waterfowl management plan". We are looking at a September deadline for completion of provincial/territorial action plans and an overview document. I would urge all provinces and territories to submit rough drafts to Sandy Macaulay, who is on secondment to us from Ducks Unlimited, so that we will be ready to open discussions with the United States next February.

Following these negotiations, draft plans will be available for substantive public participation up to July 1984, with the international plan complete in February 1985. After that, we may have to adjust the Canadian plan and action plans to bring them into line with the overall North American plan.

Fur industry

There is a growing controversy in Canada on the humane trapping issue. In my opinion, we must take this matter very seriously. A $600 million industry is at stake, including the incomes of 90 000 Canadians--some 65 000 of them native people.

We recognize that this is mainly a provincial responsibility, but we will continue to accept our responsibility at the national and international levels. We will continue to support the creation of the Fur Institute, and development of humane trap standards here and internationally. Perhaps most important, we will not succumb to the wishes of the small but vocal anti-hunting and anti-trapping groups. Let me make it clear. We support a smooth transition from present trapping devices to those that are more humane without causing undue economic hardship to trappers.

Migratory birds

Let us turn now to federal/provincial co-operation. In April, we began discussions with Alberta to rationalize our respective programs for more effectively protecting and managing migratory bird resources. There are four guiding principles as the basis for an accord with those provinces and territories which are interested.

(1) Clarification of federal and provincial roles and responsibilities for migratory bird management will be pursued within the existing legal and constitutional framework.

(2) If requested, Environment Canada will delegate certain migratory bird management responsibilities, on a province-by-province or territory-by-territory basis, as the capacity to assume management is developed.

(3) In co-operation with provinces and territories, CWS will develop national principles, standards, and criteria, and will evaluate their application across Canada.

(4) The delegation of additional responsibilities will be implemented by ministerial agreement, and the accords will remain in force as long as both parties are satisfied that all conditions are being fulfilled.

We are moving to conclude an accord with Alberta. Following those principles, we later expect to develop more detailed agreements with Alberta on migratory bird enforcement, research, and permits other than hunting permits.

Government and NGOs

I think you will agree that wildlife management in Canada has reached a cross-roads. Not only is CWS itself embarking on a brave new route, but I see evidence of a new spirit among provincial and non-governmental organizations (NGOs). It is evident that the roles of federal, provincial, and territorial agencies are changing. More and more direct and indirect influence is being exerted by NGOs. Governmental agencies have long been the major actors in wildlife management. But now we see a wide variety of seasoned performers on stage. NGOs have assumed a major role in acquiring habitat, funding research, conducting information programs, and influencing politicians.

So where do governmental agencies go from here? I am convinced that more emphasis will have to be placed on co-ordination, making sure that every effort and every dollar is well spent to achieve efficiency in wildlife management. This is a somewhat different route for us, but a challenging one.

We have created a new map, with your help. Our route into the future is being carefully checked out. We are already making preparations for this exciting journey. But we cannot make the journey alone. So we invite you to joint us and make the trip a success.

Update report

FUR INSTITUTE OF CANADA
Recommendation No. 15

R.C. Goulden,
Director,
Manitoba Wildlife Branch

Considerable progress has been made since our last meeting in Whitehorse, and I would like to outline a bit of the background and that progress.

Most of you will remember that the first meeting of wildlife directors, held in Edmonton in May 1981, requested that the Federal-Provincial Wildlife Conference devise means to ensure that the development and implementation of humane-trapping systems was carried on at the expiry of the mandate of the Federal-Provincial Committee for Humane Trapping. That committee ceased operations in June 1981 with the tabling of its formal report at the Charlottetown Federal-Provincial Wildlife Conference. The conference then passed a recommendation for the establishment of the Task Force to develop a proposal for a "Fur Institute" that would ensure the continuance of humane trapping work in Canada--to see that the matter did not fall between the chairs and go into oblivion.

You will also recall that we prepared a proposal, tabling it in Whitehorse, YT, at this conference 1 year ago. The conference accepted it and recommended moving forward on it. Wildlife ministers then met in Regina in September 1982, and wanted some changes made to the proposal. Following that meeting and discussions in some depth with the private sector, the Task Force is now prepared to recommend the establishment of the Fur Institute of Canada.

The directions that the wildlife ministers gave to the Task Force, although perhaps not couched exactly in these words, were somewhat as follows:

(1) They wanted the Task Force to reduce the institute's objectives (which, as originally promulgated, were very broad), so that they did not conflict or overlap with established private-sector organizations.

(2) They wanted an increase in private-sector funding.

(3) They wanted to ensure stronger provincial involvement in the direction of the institute.

(4) They wanted the Task Force to propose a specific program of work for the 1st year of operation, so that they would know what the institute would be doing.

We believe that each of these directives has now been achieved, and on that basis we are recommending proceeding forthwith.

Terms for Fur Institute

I would reaffirm the mandate of the institute, as now perceived, which will be two-fold: to provide funding for, and co-ordination of, humane-trap development work across Canada; and to act as an advocate for the Canadian fur industry

through the development and implementation of educational programs, which will make the public aware, both in Canada and abroad, of the values and dynamics of the Canadian fur industry.

The Task Force, in mid May, submitted a report to all of the ministers responsible for wildlife throughout Canada. They provided the "Articles for incorporation" of the Fur Institute, and the revised set of "Objects" for the institute, along with program documents that outline a 3-year program for humane-trap development, and a 1-year program of information and educational development. They also outlined a formula to share costs between government agencies.

I can indicate to you, with some pleasure, that we have had a good response to that initiative. About half of the jurisdictions have already replied; all in the positive. I am aware that of the remainder, at least so far, none has indicated any intention not to reply in the affirmative. We seem to be getting good solid support.

I am particularly delighted because, as Bert Tétreault reminded you, this industry is worth something in the order of $600 million to Canadians. Some of our most disadvantaged people depend upon it. It is the only income-earning opportunity for many people in many native communities. It is our oldest industry. It is one industry by which this country is known throughout the world and one worth saving. Therefore, it is clearly one worth fighting for. And, although we do not intend to fight in the conventional sense of the word, we intend to work strenuously, with all who would help, to develop systems for taking fur-bearing animals that would reduce stress, pain, and discomfort to the bare minimum.

It is important that we get on with the job. On behalf of the Fur Task Force, the following words were sent to the ministers back in May:

> Recent events in Europe and elsewhere confirm that Canada will be singled out for intense anti-fur lobbying in the coming year. Although Canada is at least 10 years ahead of the rest of the world in the application of humane-trapping technology, we have much to lose by not being prepared for the impending attacks. It is essential, therefore, that the Fur Institute of Canada become operational and get on with its work.

I know that delegates around this table are committed to that end, both by what they have said and by what they have done. There have been a number of changes made in the details of the proposal. I do not intend to go into those now, because I believe that they can only be really adequately evaluated by studying the "Articles for incorporation" at some length and in depth. However, I will be prepared to answer questions at the close of this report, and at any time thereafter, and I would be most willing to respond to you in writing if you would so wish.

Members of the Task Force

I will be turning the podium over to Arthur Frayling, a friend of our's from London with the International Fur Trade Federation, who, I might add, is proposing to assist the Fur Institute of Canada in no small way in its undertakings with respect to humane-trap development. But, first, I want to thank the various

members of the Task Force for their unselfish efforts over the last 2 years. I think, particularly, I should single out the individual who rarely gets recognized in these kinds of endeavours; that is the person who functions as secretary. Doug Pollock has done that ably for 2 years now and has done a tremendous job. I want to thank Doug Roseborough, representing the eastern provinces, and from Ontario, and Neal Jotham, representing all of the interests of the Humane Societies, who has been a strong advocate of that sector of society, and a most reasonable and authoritative person to deal with. We respect him for his positions taken and for his contributions. Roger Betz, of the Ontario Trappers' Association, started out with the Task Force, but had to leave the country for a period of time and was replaced by Alcid Giroux, the President of the association. Both men, representing trappers' interests in Canada, made substantial contributions. Victor Topper of the Fur Council of Canada, representing the private sector, again brought a number of facets to bear that otherwise we, as bureaucrats, would have missed. Although he is not here today, Denyse Angé has capably represented him on many occasions, and we thank her and Victor for their efforts.

I can truly say that what we have now come up with is a corporate structure which will be autonomous, but with specific objectives that, if pursued, will get us to where we want to go. It will neither be the child of government, nor of industry, nor of the humane interests, nor of trappers. However, I am convinced that it will represent the common thread that runs through all of those. Therefore, I want to suggest to you that it is now time not only to put our money where our mouth is, but to put our shoulder to the wheel and get on with the job.

Arthur Frayling will now bring us the latest developments on the international scene, not only in the anti-fur movement, but regarding some of the positive initiatives that international interests, on behalf of the fur industry collectively, are undertaking.

Comments on Fur Institute of Canada

A. Frayling
International Fur Trade Federation

I am very much encouraged by what I have heard so far. First of all, we had some very good fighting stuff from Mr. Tétreault, who I had the pleasure of working with in Botswana, and we have just had, from Mr. Goulden, some very encouraging developments. I had the pleasure of meeting some of you in Prince Edward Island 2 years ago, when I had not been in Canada for a very long time. But this is my third trip in 1983; I was in Winnipeg about 10 days ago and then went back to London. All of which, I think, indicates our very great interest and concern in the question of trapping, and the effect it is having upon the fur industry as a whole. Most important of all, in this particular setting, is the adverse effect it is having on the good name of Canada.

Cost of research

In January, I came across to attend some important meetings in Toronto. They were to discuss the whole question of anti-fur and the nature of the anti-fur

campaign, and where it was most directed. I was able to tell the gathering then that the main prong of attack was the trapping of fur-bearing animals and, particularly, the use of what is known as the "leg-hold trap". Subsequent to that, another important meeting was held in Toronto, and a proposed plan, to research in depth the whole subject of humane trapping, was put on the table. I observed that the cost of this research over a 3-year period was to be a substantial sum of money. I think it was $1 194 000, and I am afraid that eyes were cast in our direction as to what the fur trade would want to do about that by way of a contribution. I pointed out that I was in no way authorized to commit our money--we have a Finance Committee for that purpose--but I liked the look of the plan and said that I would give it a pretty powerful recommendation.

Upon returning to London, I contacted one or two of my colleagues and we immediately informed Canada that we would stand 50% of the cost of that plan with cash on the table. Now that is an unusual thing in the fur industry. We do not usually have that kind of money. I should explain to you that the International Fur Trade Federation's funds arise from 0.5% added to the invoices of buyers at fur auctions, which is frequently and totally incorrectly referred to as a "levy". It is not a levy at all. It is an additional charge imposed on invoice at the request of the buyer. This is an indication of the fact that the average fur-buyer, who goes through an awful lot of criticism, is, in fact, minded to do something about his trade by putting his hand in his pocket. I would want you to know that. There is no question whatsoever of a levy. This is a voluntary charge imposed at the request of the buyer through his trade association.

Anti-fur campaign

We had all begun to think and hope that the anti-fur campaign was abating somewhat. The demonstrations that were taking place in Europe almost daily, about one subject or another, had been far more directed to the nuclear question. That seemed to have been taking up some of the slack, or so we thought. However, there was a rude awakening last Thursday evening, at the Savoy Hotel in London, where the fur industry holds it annual Benevolent Society function for the purpose of raising funds for members of our trade who have fallen on hard times. I happen to be the trustee of that association. I am sure you will be disgusted to hear that, at a benevolent function, the anti-fur demonstration surrounding the Savoy Hotel ran into hundreds. There were 12 arrests for throwing smoke bombs at the police force. Many ladies had paint slung against their garments. Most of the cars were daubed with paint, if they could not get out of the way in time. And that was directed, I am afraid I must tell you, not against the fur industry as such, but against the use of the leg-hold trap. Placards were held in the air everywhere all around that hotel.

Then, last Saturday, the annual general meeting was held of the Royal Society for the Prevention of Cruelty to Animals (RSPCA). That meeting of this august and highly respected body ended up virtually in disorder by a demand from the floor that they should cease to enjoy charity status, for taxation purposes, because it tied their hands against demonstrating what the membership unanimously wanted to demonstrate at public level, i.e., that the trapping of animals by cruel methods must cease.

Now, these are just two events over one weekend. You may say straight away that Britain is not a major fur-consuming country anyway, and you would be right. Holland is not either, but the fact of the matter is that the anti-fur

demonstrations in Amsterdam are virtually a weekly attraction, I regret to say. In Germany, of course, we have a major problem because they are the largest fur-consuming country in the world.

In my federation, members quite properly ask, "What are you doing about it?" First of all, the advent of a trapping problem is nothing new to my federation. Many of you may remember we financed, in generous part, the research at the University of Guelph. We are currently financing experimental work at the University of Washington. We have financed, for very big money, an entire survey of the "cats" of South America. We are involved in numerous projects, which will indicate to you that it is not a new thing for us to be interested in this. We are interested in animal welfare. It is a matter of common sense that we need the public with us, not against us. They wear the fur and their good will is essential. Towards that end, the International Fur Trade Federation has appointed and organized what is known as its "Ecology unit", situated in Copenhagen. It is in professional hands, and high-class public relations and journalistic systems have already been engaged. Their first report is that "the heat is off the caged mink operation", which had some publicity earlier in the year, and that we must stand by in the month of September for a massive attack, organized across Europe, on the use of the leg-hold trap. So we keep coming back to the same problem.

Urgent need

As major handlers of fur (the federation consists of 30 countries, which include every serious consumer of fur in the industry) it is our duty to tell you that the product from which we all earn a living is gravely under fire. Whilst I respect what was said by a previous speaker--that nobody intends to get jostled over this, and the trappers' interests must clearly at all times be observed--I want to leave you with this thought: there may not be time for their interests to be observed the way that you would wish them to be. We are up against a problem of grave consequence to the future of the fur industry.

In all our efforts we are closely associated with our Canadian member, the Fur Council of Canada. Victor Topper is now the President, and we also work very closely with Denyse Angé. We would not dream of undertaking any major step without the benefit of their opinion as well, and we are standing together with them on our proposition to finance, or finance in part, this major trapping research operation. I do not want to close on an unfortunate note, but in a trade like the fur trade, there are tremendous calls upon our resources. These have been absolutely shattered by the collapse of the Karakul pelt industry (better known to you, perhaps, as Persian lamb), from which we used to derive our major income. Thanks to drought and market conditions, that industry is now, more or less, of no consequence whatsoever, and this has happened rapidly over a period of 3 years.

We have not got too much money and my members are asking me, having already back in January-February decided that we were going to help in this matter, "Isn't it about time something happened?". So, although I am encouraged by what I have heard this morning, our undertaking is not indefinite. I do not mean that unkindly, but my members naturally enough want to know where they stand. We thought that you would have this thing running by June, but we now realize that it was just an ambition. I have heard the month of September mentioned this morning. I must say that by 30 September we would expect our contribution to

have been called up with the proper credentials. We need money for our future plans, and I am afraid that 30 September is probably as far as our members will want to go. So, good luck to everybody with your deliberations.

You have got a problem which we must all share. This ridiculous attitude, that the furrier has made a fortune out of the suffering of animals, is absolute and utter nonsense. The fur trade is in very grave distress, at the moment, and nobody likes to see the discharge of labour that has been engaged in the interest of the craft and industry for years. So, I can only give you encouraging words in the spirit that, if you can get this research into humane trapping going along the lines laid down, we will all use it very extensively in our publicity and will be seen to be doing something, which is the main point.

In that spirit, I hope that everything will go very smoothly, enabling you then to count 100% on the co-operation of the International Fur Trade Federation. We have the welfare of animals at heart. We have the fur industry at heart. And your great country is a very integral part of it.

Summary of discussion

During discussion on Recommendation No. 7, concerning the establishment of the Fur Institute of Canada, G.W. Pepper (Saskatchewan Wildlife Branch) stated that the concern his province had in 1982 had been alleviated. He asked whether a periodic review of the usefulness of the institute would be undertaken after a number of years.

R.C. Goulden (Manitoba Wildlife Branch) pointed out that the institute would be a corporate entity, and that if any members of the corporation believed a redirection of effort was required, there was, through the Board of Directors and the membership process, a fairly clear methodology for influencing that. Also, if governments in general felt that the institute was taking a course of action that they did not agree with, they could band together and bring about changes through the normal process already built into the "Articles of incorporation".

Mr. Pepper asked if there was a built-in requirement to submit an annual report and a financial statement.

Mr. Goulden replied that there was an auditing function built into it.

Mr. Pepper said that this would not necessarily identify whether the corporation was meetings its objectives or not.

D. Roseborough (Ontario Wildlife Branch) commented that the corporation was set up so that it could be reviewed annually by all member organizations, and any audit would be carried out by outside auditors. All members would require that the thing run efficiently.

Mr. Pepper said that he was satisifed with the recommendation as stated. (See Recommendation No. 7.)

Update report
Value of wildlife

IMPORTANCE OF WILDLIFE TO CANADIANS

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Last June, following the 1982 conference, an effort was made to create a special sub-committee to oversee the analysis of the important data set collected in the 1981 survey by Statistics Canada. Invitations were sent to all sponsors of the survey and, in response, Quebec, Manitoba, Saskatchewan, Alberta, and British Columbia agreed to join with CWS to undertake the analysis. The sub-committee worked on two documents. The first is a report entitled "The importance of wildlife to Canadians: Highlights of the 1981 National Survey" (Canadian Wildlife Service, 1983). The other is a Proposal for a more comprehensive analysis of the same data set. My presentation will focus on those two points.

Before I continue, it is important that I point out the names of the co-authors of the documents. Two of the members of the sub-committee who have worked on the Highlights report and the Proposals are here: Wayne Pepper of Saskatchewan and Peter Boxall of Alberta. The other people who have participated in co-authoring the Highlights report are: Steven James of CWS, Jean-Luc Ducharme of Quebec, Roger Reid of British Columbia, and Dan Teillet of Manitoba. I wish to extend my very sincere thanks to all of them for their tremendous support in overseeing this publication. Steven James, in particular, was most generous in the amount of time he spent on tabulations and in drafting and editing numerous transcripts.

The Highlights report covers a wide variety of topics. It contains information on:

(1) participation by Canadians in a number of wildlife-related activities,

(2) the amount of time spent by Canadians on them,

(3) data on the amount of money spent on these activities,

(4) information on their attitudes towards wildlife populations and wildlife-related activities, and

(5) a statistical appendix by Brian Collins of CWS that examines the statistical precision of the results.

I will touch, briefly, on these topics as I attempt to give you a small sample of the findings contained in the publication.

Participation in wildlife-related activities in 1981

The first question I will address is: what type of wildlife-related activities do Canadians participate in? This question, dealing with the popularity of wildlife-related activities, is the focus of chapter 2 of the Highlights report. The chapter contains an abundance of data, including some provincial breakdowns, graphs on participation rates by type of wildlife, and a profile of who the users are.

Figure 1

Number and Percentage of Canadians Participating in Wildlife-Related Activities During 1981

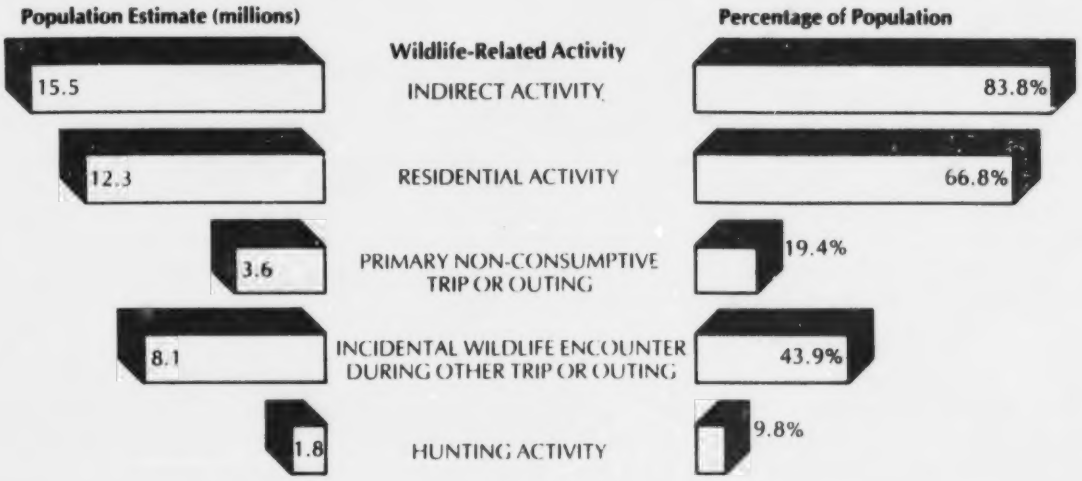


Figure 2

Number and Percentage of Canadians Participating in Indirect Wildlife-Related Activities in 1981

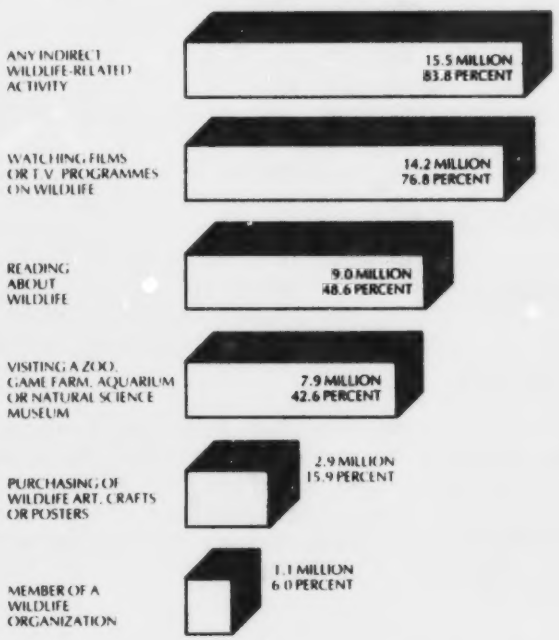


Figure 1 contains an overview of the results of the questionnaire. The bar chart on the left indicates the number of Canadians, expressed in millions, who have participated in a variety of wildlife-related activities. Whereas the chart on the right presents the proportion of the Canadian population that has participated in these activities. The target population, as you will recall, constitutes Canadians who are 15 years of age or more.

The figure indicates that "Indirect wildlife-related activities" were the most popular of those engaged in by Canadians in 1981. Indirect activities include watching films or TV programs about wildlife, reading about wildlife, visiting zoos or game farms, purchasing wildlife art or posters, being a member of a wildlife-related organization, etc. The next most popular category was "Residential wildlife activity", which takes place around someone's residence or cottage. The third deals with people who have taken trips whose primary purpose was to encounter wildlife in a non-consumptive context.

The fourth activity on the chart deals with people who have taken trips, for business or pleasure, and who have encountered wildlife incidentally on those trips. It is noteworthy that the vast majority, approximately 93% I believe, of those people who have encountered wildlife incidentally in the course of a trip taken for business or pleasure reported that encountering wildlife had increased their enjoyment of that trip considerably. The last item on the chart deals with the proportion and numbers of Canadians aged 15 years or more who have hunted during 1981. This activity includes large and small game mammals, migratory game-birds, and other upland game-birds.

Here are the figures on participation in 1981: 84% of the population, or 15.5 million Canadians, were involved in indirect wildlife-related activities; 67% in residential activity; 19% in primary non-consumptive trips; 44% in incidental wildlife-related encounters during trips taken for business or pleasure; and about 10% hunting wildlife in 1981.

Figure 2 deals with the indirect wildlife activities that I have just mentioned. This chart reveals the relative popularity of this category. The most popular was watching films or TV programs about wildlife, reported by 77% of the population; reading about wildlife, 49%; visiting a zoo, game farm, aquarium, or natural science museum, 43%; purchasing wildlife art, crafts, or posters, 16%; and membership in wildlife organizations, 6%, or 1.1 million people.

Figure 3 provides insights into the residential wildlife category. What type of wildlife-related activities do people pursue around their home or cottage? Watching wildlife was reported by 54% of the population; feeding scraps to wildlife, 40%; purchasing feed for wildlife, 20%, or about 4 million people; studying wildlife around their homes, about 20%; photographing wildlife, about 17%; and people who are maintaining plants or shrubs around their homes or cottages for the purpose of attracting or keeping wildlife populations nearby, 13.4%, or 2.5 million people.

Figure 4 reveals the types of activities that take place during a trip or outing for which the primary purpose was to encounter wildlife in a non-consumptive context. Of those people who took similar trips, 16.3% enjoyed watching wildlife--that translates into about 3 million Canadians; 7% of the Canadian population photographed wildlife on these trips; 6% studied wildlife; and about 6% fed wildlife on those trips, or 1 million people.

Figure 3

Number and Percentage of Canadians Participating in Non-Consumptive Wildlife-Related Activities Around Their Residence or Cottage in 1981

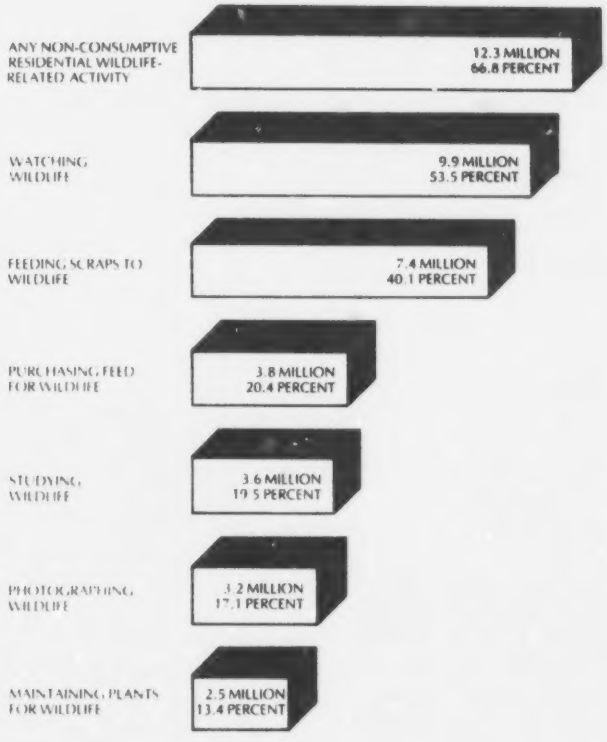
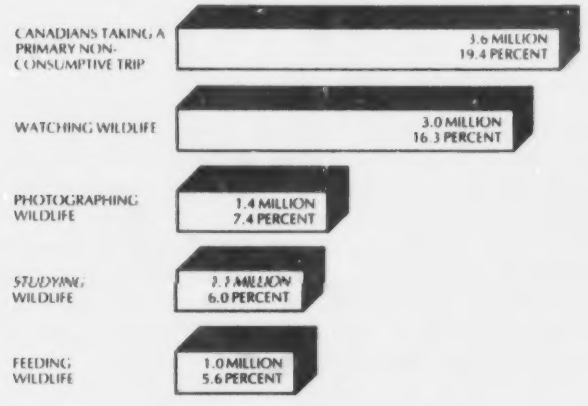


Figure 4

Number and Percentage of Canadians Participating in Non-Consumptive Wildlife-Related Activities While on Primary Non-Consumptive Wildlife-Related Trips or Outings in 1981



As indicated earlier, a number of Canadians who take trips for business or pleasure may find themselves in situations where they encounter wildlife incidentally. This, of course, adds to the enjoyment of the trip and, as I will reveal later, encourages travellers to spend more money than they might otherwise have if wildlife had not been encountered.

Figure 5 shows that 44% of the Canadian population enjoyed wildlife in the context of trips taken for business or pleasure. During these incidental encounters with wildlife, 40% of the population enjoyed watching wildlife; 14% fed wildlife; 8% photographed wildlife; and 2.2%, or about 500 000 people, studied wildlife.

Figure 6 provides a breakdown of the relative popularity of various types of game hunting. Of the Canadian population aged 15 years or more, 10% reported hunting in 1981. That is equivalent to about 2 million Canadians. Hunting of waterfowl was pursued by about 4%; and hunting of other game birds, small mammals, or large game, by about 5%.

A question which is seldom asked is what portion of Canadians have been involved in hunting at some point during their lives. The present survey results show that 32% of those aged 15 years or more had hunted in 1981 or earlier. This important finding suggests that questioning the public on hunting for a specific season may produce an underestimate of the interest. I believe it is well known that hunters do not necessarily pursue this activity every year, but may be doing so every other year or perhaps less regularly.

Time spent in participating in wildlife-related activities in 1981

Figure 7 summarizes the number of different days on which people have been involved in these wildlife-related activities. At the right of the figure are estimates of the average numbers of days per participant. On the left are the total numbers of different occasions on which these activities were pursued by Canadians in 1981. Participants in residential wildlife-related activities did so on an average of 61 days. If we combine all participants, they spent a total of 754 million days on these activities in 1981. For primary non-consumptive trips, an average of about 16 days was spent per participant; all participants combined spent a total of 57 million days. Those encountering wildlife incidentally while on business or pleasure trips spent an average of 18 or 19 days enjoying wildlife, for a total of 153 million days. Game hunting was pursued during an average of 18 days per hunter, or a grand total of 32 million days in 1981.

Expenditures on wildlife-related activities in 1981

One of the questions which is often asked by managers is: how much do people spend on wildlife-related activities? This is the subject of Figure 8. The chart reveals that about half of this money was spent during trips taken primarily for non-consumptive encounters with wildlife. It amounted to $2.1 billion in 1981. The average amount spent was approximately $589 per participant. At the bottom of the chart are expenditures for game hunting, on which hunters spent a total of $1.2 billion in 1981, their average being $622. It is noteworthy that hunters have the highest per capita expenditures of all the categories of participation studied.

Figure 5

Number and Percentage of Canadians Participating in Wildlife-Related Activities While on Other Trips or Outings in 1981

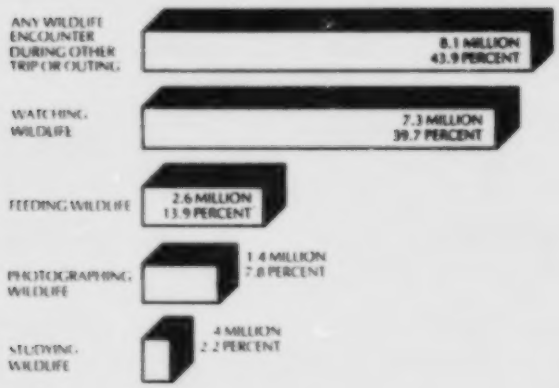


Figure 6

Number and Percentage of Canadians Hunting Wildlife in 1981

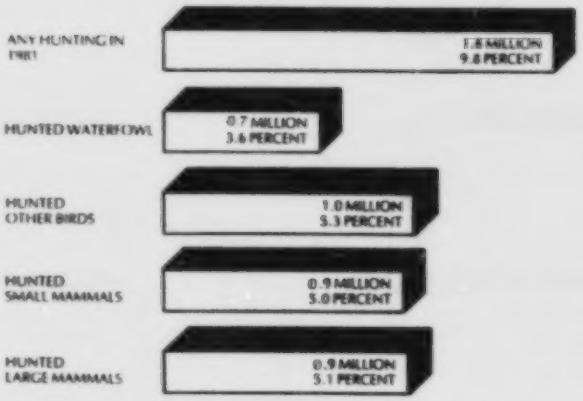


Figure 7

Total and Average Number of Days on Which Participants Engaged in Wildlife-Related Activities in 1981

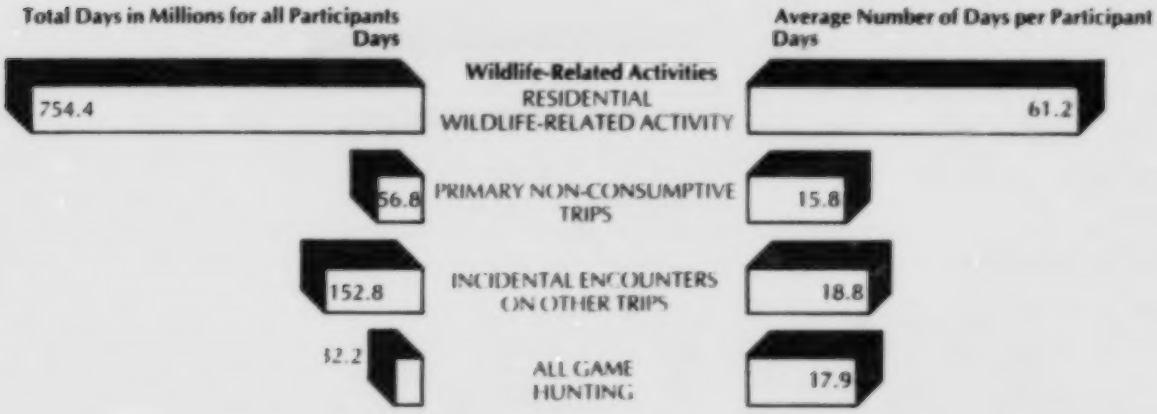
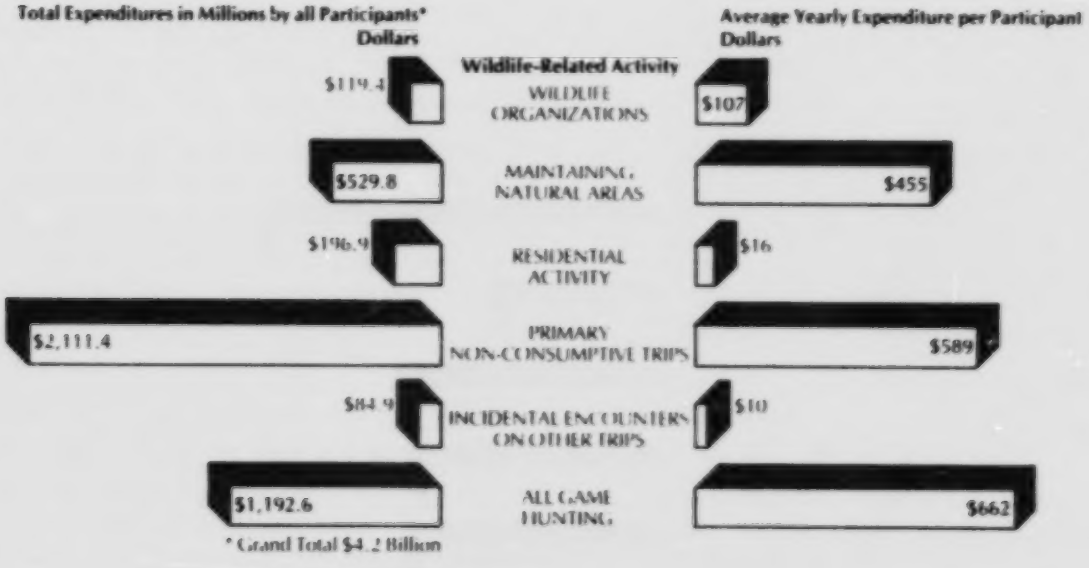


Figure 8

Total and Average Expenditures by Participants in Wildlife-Related Activities in 1981



Two categories, the non-consumptive primary purpose trip and the trip taken for hunting, accounted for more than $3 billion, or 78% of the total dollars spent on wildlife-related activities. On the average, people who contributed to, or who were members of wildlife organizations, spent $107 on this activity, with a total of more than $119 million in 1981. People did spend substantial amounts of money on maintaining natural areas for wildlife: an average of $455 per person, or a total of $530 million in 1981. The bar on residential activity, which I pointed out as a very popular activity at the beginning of my presentation, indicates that people, on the average, spent only about $16 on it, or a total of about $197 million. Evidently, some of the most popular activities do not necessarily result in the largest total expenditures. Those activities showing the highest commitment appear to be hunting trips and primary non-consumptive trips respectively. The grand total for this chart amounts to over $4 billion.

Attitudes towards wildlife in 1981

The questionnaire contained several questions that attempted to get at attitudes and feelings towards wildlife populations and wildlife-related activities. In Figure 9, we have an example of the response given to the question: how important is it to you to maintain abundant wildlife populations in Canada? Of the people questioned, 80% reported the maintenance of abundant wildlife populations to be fairly or very important. The bar chart below the pie chart gives an indication of the response broken down by province. As one goes from east to west, there seems to be an increase in concern over this particular topic. Incidentally, the report contains a number of similar provincial break-downs that I do not have the time to cover in this presentation.

Another example of the type of attitudinal question asked relates to interest in participating in a variety of wildlife-related activities. Figure 10 indicates the level of interest of the Canadian public in joining a wildlife organization. Of the people questioned, 11.6% reported that they would be greatly interested in joining an organization. Remember, this is in contrast to the 6% of the population that reported a membership in 1981. Another 32% indicated that they had some interest in joining. In other words, the survey reveals that approximately 43% of the Canadian public has an interest in joining a wildlife-related organization.

Selected characteristics of participants in 1981

Figure 11 presents a profile of the group that we sampled. This, in fact, is a mirror-image of our target group, the Canadian population of 1981. The upper left-most cylinder represents the break-down of the population in terms of sex, the cylinder to the right is age, the bottom left is education, and the bottom right is rural-urban residence. As you see, the Canadian population has slightly more females than males. About half of the population falls in the age group ranging from 25 to 44 years. Over half have a secondary school education, with no post-secondary education, and about 70% reside in urban areas.

The report has a variety of these charts or profiles for the various users' groups that I have talked about, and obviously I cannot go into those details now. Perhaps a few observations are relevant at this point. When we take the wildlife users' profiles that are in the report and contrast them with this

Figure 9

Percentage of Canadians Reporting Maintaining Abundant Wildlife to be Very or Fairly Important in 1981, by Province of Residence

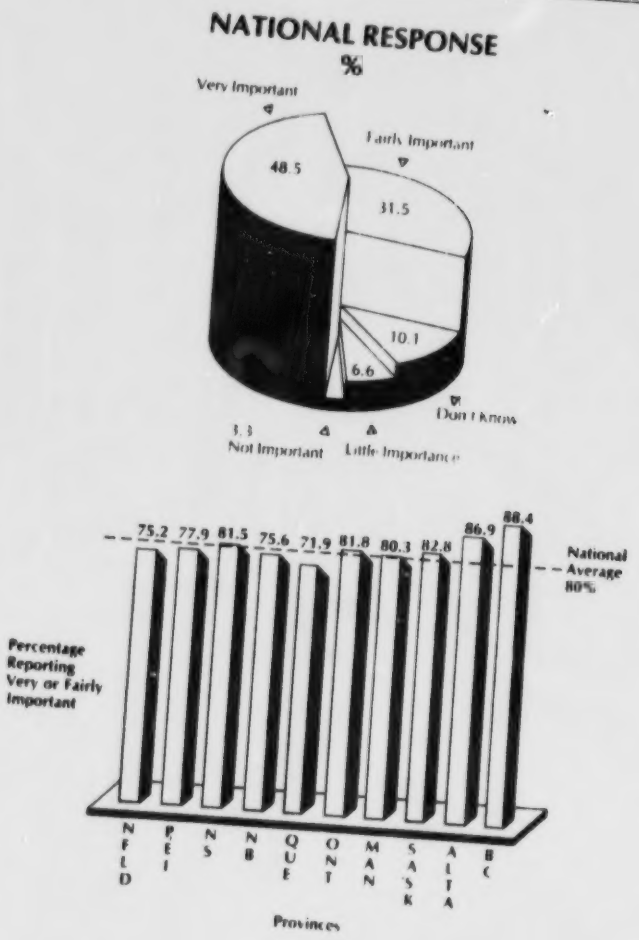
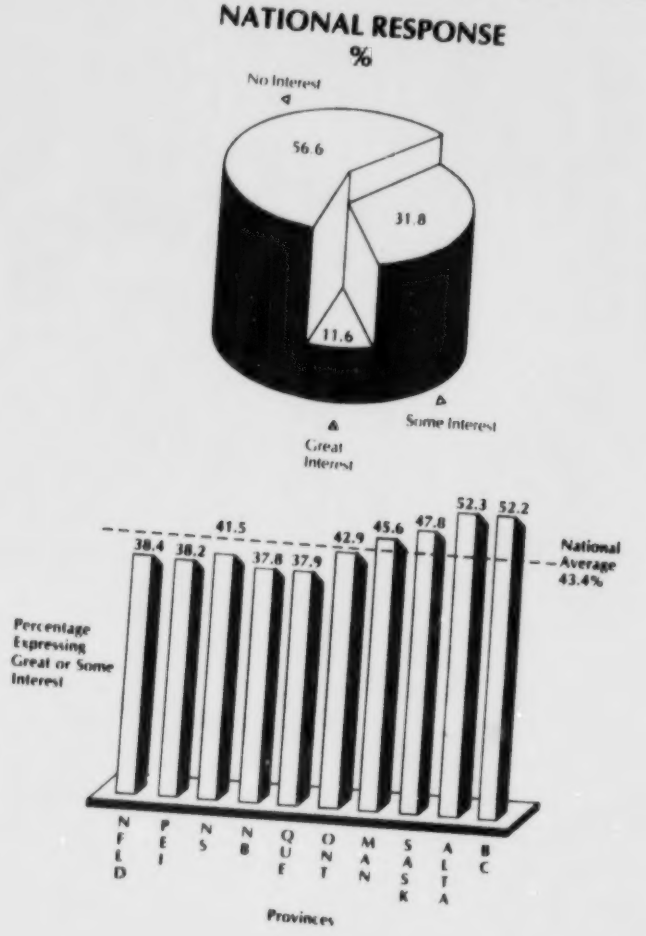


Figure 10

Percentage of Canadians Expressing Great or Some Interest in Participating in One or More Wildlife-Related Organizations in 1981, by Province of Residence in 1981



profile of the Canadian population, we see that there are some rather important differences. One that is noteworthy, I feel, is the fact that in the vast majority of cases males are over-represented in wildlife-related activities. In other words, while more than half of the Canadian population is made up of females, we mostly find that less than half of the participants in wildlife-related activities are female. This difference is most apparent, of course, in hunting, where well over 90% of the people pursuing this activity are male.

A variety of noteworthy observations arise also with regard to age. In all wildlife-related activities that require a trip, consumptive or non-consumptive, we find a higher concentration of 15 to 44 year-olds than in the Canadian population. Another interesting observation is the fact that the popularity of residential activities increases with age. Similarly, older people who encounter wildlife incidentally, while on trips taken for business or pleasure, spend considerably more time with wildlife than younger people in the same situation.

Education seems to have an effect on the nature of wildlife-related activities. Those involved in non-consumptive activities have post-secondary and university education more than the norm. On the other hand, we find that hunters are typified by secondary schooling more than the norm. There are virtually no appreciable differences according to rural-urban residence except for one activity: hunting. We have a considerably higher concentration of hunters residing in rural areas than are in the Canadian population as a whole.

Potential implications for wildlife management's future

The report examines a variety of potential implications for wildlife management that stem from the above findings, and I will not address them in detail. Very briefly, I believe that this fresh knowledge will increase the awareness of wildlife managers and those heading wildlife organizations. This increased awareness of less traditional wildlife-related activities is likely to have implications for marketing strategies, and for existing or future management policies and programs. Knowledge of the fact that hunters pursue many types of game in a given season will probably have implications for future data collection methods--the way in which we conduct harvest surveys of hunters and derive estimates from them.

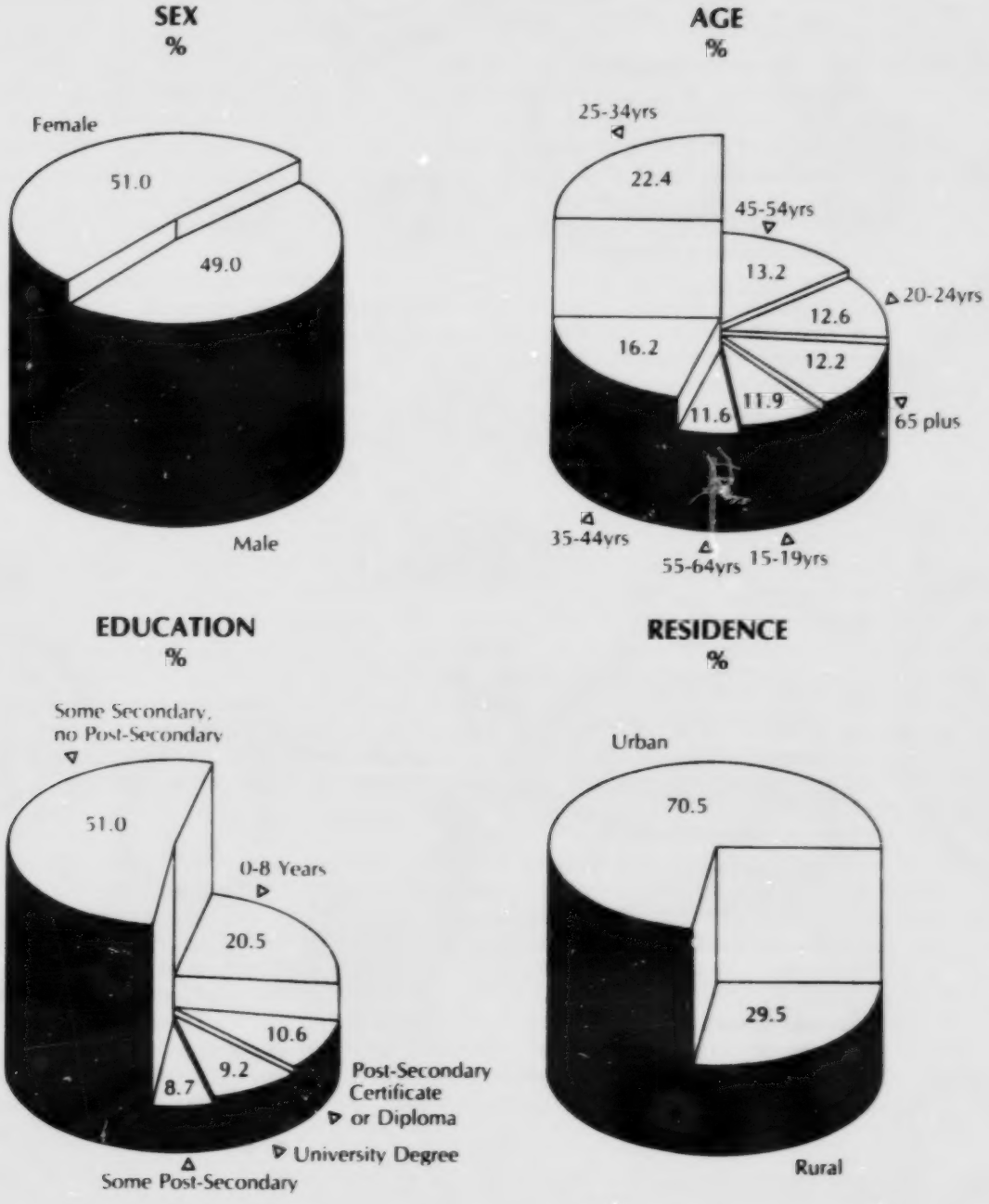
In terms of estimating potential demand for wildlife-related activities, there are a number of signals in this survey that help us appreciate what the future could have in store. For example, when we contrast actual participation rates in hunting in 1981 with the reported interest in getting involved in consumptive activities, there are signals that actual participation in consumptive activities might be increased by about 174%. How would such an increase affect current wildlife management policies and future wildlife populations? If one looks at 1981 memberships in organizations, and contrasts this to reported interest in joining a wildlife organization, there seems to be a possibility of support for these organizations increasing by as much as 600%.

Proposal for a more comprehensive analysis

At this point, I would like to turn to the future analysis of this data set. I will not discuss the proposal in detail, but merely introduce it. When you recall the objectives that were set in 1980 with regard to the present study, I

Figure 11

A Profile of the Canadian Population aged 15 Years and Over.



believe, as do members of the committee, that the objectives have been met. We have designed the study, conducted the survey, and prepared a report on its major findings. The raw data file will be available from Statistics Canada very shortly, and will be available to all the sponsors. However, the committee believes that the importance of this data set and its potential usefulness to wildlife managers across the nation are such that a co-ordinated approach to its analysis and dissemination would be extremely valuable. Consequently, the proposal that we offer attempts to identify potential needs that managers would have and to which these data could be applied. It identifies a variety of themes; themes which, we feel, fall into the context of a comprehensive analysis that would yield important resource documents, which wildlife managers could turn to as aids to help them protect habitat; aids to help them plan and make policies, and that would be helpful in evaluating current or future programs.

I wish to point out that the proposal is the collective product of the authors of the Highlights report. Five themes are being proposed for exhaustive analysis and a formula for sharing the additional cost that this will involve. The aim would be to complete the additional comprehensive analysis between July 1983 and December 1985.

Five other themes

The first additional topic proposed is methodological in nature. This theme would seek to document, in a comprehensive manner, what has been done to date. Statistics Canada does provide documentation on its data sets but, from experience, it is clear that this documentation is primarily intended for internal use and does not allow outside users to process the information easily. We propose to document clearly all phases and parts of this survey. Also we propose to create an SPSS system file, which would allow most sponsors easily to run additional tables for their exact needs if and when these needs arose. Thirdly, it would be extremely important to make comparisons of these unprecedented results with other existing results--whether they originated from harvest surveys or other socio-economic surveys.

I think we will find a few significant and surprising differences,and it is very important that we try to address and explain these differences, so that the managers and the data that they use come under fire. Why would we need this sort of report? There will probably be, at some point in the future, a need for some managers to justify the socio-economic estimates they are using to defend or promote an important cause. There may be a need for some sponsors at this conference to repeat the study, and so having good documentation on this pioneering study is absolutely necessary--especially if we wish to establish trends or make comparisons over several periods in time.

The second additional topic that we are proposing deals with socio-economic and demographic profiles of "specific" wildlife users' groups. This is important and quite different from the profiles of the broad users' groups that I mentioned in my presentation earlier. For example, the Highlights report contains a profile of hunters in general, but does not distinguish waterfowl hunters from big-game hunters. The profile we have for indirect wildlife activities covers a wide range of users. It includes, among others, members of organizations as well as people who watch wildlife on TV. It seems to me that the profiles of these two groups are likely to be very different from one another.

There is also the important question of people who pursue many types of activities. The Highlights report may give the impression that we have users' groups that are neatly compartmentalized. I believe that is misleading. There may be many people who are active hunters and who also take trips for non-consumptive purposes. These same people may also be actively involved in wildlife-related activities around their residences, and in maintaining habitat. The question I ask is: how do these important multiple users differ from other less committed types of users? They should be viewed as important allies whom managers need to know more about. That is one way of increasing our awareness of who user groups are, and this knowledge may increase the effectiveness of our communication with them. It may also be a means of getting a better understanding of who potential funders for new programs may be, and a way of helping us understand who the people that benefit from our programs are.

The third theme that we are proposing to cover would deal with the economic value of wildlife-related activities in Canada. The Highlights report indicated that $4.2 billion was spent on wildlife-related activities in 1981. We have to be very careful to distinguish between "expenditures" on activities and the "worth" or "value" of the activities that are based on wildlife. To arrive at the value or worth of wildlife-related activities, we have to go through a complex exercise. It means examining the "value-added" economic concept. It also means examining the "consumer-surplus" economic concept.

I think that some of you will find that treasury boards can be rather critical of the use that is sometimes made of expenditure data. These data can play an important role, but when it comes down to justifying programs at the level of treasury boards, there is a need for a more refined argument in terms of the actual impact expenditures have on the economy. Also, knowing what wildlife are worth to people, their consumer surplus, can be useful since it provides an idea of how much people may be prepared to pay above and beyond what they are presently paying for the enjoyment derived from wildlife. This is something that all of us should be concerned with, because at some point in the future there may be an urgent need to tap this area to fund management programs.

The fourth theme that we are proposing would deal with geographic and inter-provincial differences. It is apparent that most of the provinces need more detailed information than has been provided in the Highlights report. This theme would attempt to provide similar details for all provinces in a standard format that allows comparisons. Further, the questionnaire allows us to determine the amount of inter-provincial travel. For example, Alberta or any other province may be interested in finding out if people come from other parts of Canada to engage in wildlife-related activities, and what sort of stimulus this may have on its economy.

The fifth and last theme would deal with recommendations on repeating, or modifying, the survey. I believe that is a very important exercise. It is vital to assess critically what has been done to date. Do we find it useful or not? What are its limitations? Do we want to repeat the survey? Do we want to recommend improvements? These, I think, are important questions that can be addressed only after we have examined the data set in a comprehensive manner.

The last page in the proposal deals with additional costs involved in undertaking this analysis. We estimate that to treat these five additional themes would cost about $350 000. This could be shared among the federal and provincial

governments. I met with the directors of CWS on 25 June to discuss this matter. CWS recognizes the merit of this comprehensive analysis and has agreed to commit $175 000 (50% of the total cost) to it. The balance would come from other sponsors as shown in Table 1 of the proposal. Although the cost figures may seem a bit large at first glance, they are quite reasonable when distributed over 3 years.

(Table 1, showing the costs of the proposal, follows in the next paper in these transactions.)

Update report
Value of wildlife

A PROPOSAL FOR A COMPREHENSIVE ANALYSIS OF THE RESULTS OF THE 1981 SURVEY ON THE IMPORTANCE OF WILDLIFE TO CANADIANS

By the authors of the Highlights report
(CWS, Quebec, Saskatchewan, British Columbia, Alberta, Manitoba)

The results of the "1981 Survey on the importance of wildlife" have highlighted the significance Canadians attach to this resource. The majority of Canadians participated in some form of wildlife-related activity in 1981, and spent several billion dollars purchasing goods and services connected with these activities.

Although the Highlights report presented to the 1983 Federal-Provincial Wildlife Conference contains some impressive findings, it does not provide an analysis of the remaining variables covered in the survey, nor does it provide the specific information which would normally be required for practical wildlife management situations. The objective of this proposal is to fill this gap by preparing five additional comprehensive reports on specific themes.

These themes would:

(1) clearly document and validate the approach used in the survey;

(2) provide additional insights on participants in wildlife-related activities;

(3) quantify the economic value of wildlife-related activities;

(4) examine inter-provincial differences; and

(5) make recommendations on repeating or modifying the survey in 1986.

This package would consist of a conclusive and practical set of resource documents to which wildlife managers could turn for assistance in seeking solutions to a range of issues and problems in the field of planning, protecting habitat, and understanding and coping with people-wildlife interactions. As expertise and funding to carry out this research are limited, a cost-sharing formula similar to the original formula used in the initial study is proposed. The benefits of this approach are obvious. Data that are relatively current and homogeneous across provincial and territorial boundaries can be processed at a fraction of the cost, as compared to individual agencies undertaking the analysis. Sponsors not equipped to undertake detailed analysis of the data set would also benefit from this co-operative approach. Detailed reports should be completed by December 1985. Individual reports would be released as completed.

An outline of each of the five themes follows.

1. A methodology report on the data set and its analysis

Because the Highlights report and others that are being proposed cannot anticipate or meet all of the specific needs of the numerous sponsors, it is important that

the raw data file for the 1981 survey be made available to the sponsors, enabling them to conduct or request highly specialized analysis. Therefore, the user of the data set will need a complete and detailed description of this complex survey. A detailed description of the background and purpose of the survey should be prepared, as well as complete documentation in the following areas:

(1) questionnaire design,

(2) methodology and results of the pilot study,

(3) Labour Force Survey (LFS) supplement -
- survey coverage,
- sample design,
- administration of questionnaire,
- weights used in the survey,

(4) editing and vertification procedures,

(5) statistical reliability,

(6) description of the SPSS system file,

(7) a comparison of the results of the 1981 survey results with existing provincial data sets.

This document is necessary to provide the user of the data set with a detailed understanding of the complex survey methodology, making the interpretation of the data more meaningful and facilitating possible repetition of the survey on the national or provincial level at a later date. Finally, it may be vital in defending the reliability and validity of the survey data that are used by managers.

2. Socio-economic and demographic profiles of specific wildlife users' groups

Recently, wildlife managers have been concerned with the issue of public awareness. While this is important, how aware are we of the people who participate in wildlife-related activities?

This report will provide additional insights into the people who pursued wildlife-related activities in 1981 by analyzing additional characteristics that were not presented in the Highlights report, and by combining these characteristics into new indicators that should be more meaningful to managers.

The LFS provides us with many variables that can offer new insights into wildlife-related activity participants. In addition to province of residence, sex, age, education, and residential setting, the LFS allows the inclusion of additional variables, such as marital status, relation to head of the family, labour-force status, occupation, and 23 distinct metropolitan areas across Canada. The Highlights report provided profiles of users of specific wildlife-related activities. This report will profile multiple-users, or those who participate in a number of wildlife-related activities. These profiles could help managers in planning and understanding people-wildlife interactions, and identifying those users who participate in:

- only consumptive activities,
- general hunting vs. specialized hunting,
- only non-consumptive wildlife-related activities,
- both consumptive and non-consumptive wildlife-related activities.

Further analysis could identify specific segments of the wildlife-related activity market. The identification of these market segments could facilitate:

- program development,
- exhibit and facility design,
- communication through printed literature and mass media,
- identification of potential users.

3. The economic value of wildlife-related activities in Canada

Knowing what people spend on wildlife-related activities is not the same as knowing what wildlife-related activities are worth to people, and how much they contribute to the economy. The economic value of wildlife-related activities is not well researched in Canada today. This study will examine the economic value of these activities at the national and provincial levels.

This topic could probably best be handled by engaging the consultative services of an independent resource economist familiar with the difficulties encountered in arriving at an estimate of value for such a resource. The proposed report should address the following:

(1) the value added to the economy by activities attributable to wildlife-related activities, and

(2) the apparent consumer surplus enjoyed by participants in selected wildlife-related activities.

An understanding of the economic value of wildlife in Canada will better enable the wildlife manager to, among other things:

(1) present more accurately the economic importance of wildlife in relation to other natural resources/activities,

(2) have wildlife recognized as an economic consideration in various resource development plans or land-use plans, and

(3) identify potential avenues for additional funding for wildlife management programs.

4. Geographic and interprovincial dimensions of wildlife-related activities in Canada

The data reported in the Highlights report concentrated primarily on the national perspective. Due to Canada's magnitude and diverse geography, extensive details for each province could not be fully represented in that initial report. This report will examine more closely the differences among the provinces.

Table 1. Estimated costs of proposal for a comprehensive analysis of Statistics Canada data set, assuming that provinces share 47% of total cost

Sponsor	Total cost ($) for 3-year (1983-85) period*	Cost ($) per year
Newfoundland	9 075	3 025
Prince Edward Island	4 290	1 430
Nova Scotia	12 045	4 015
New Brunswick	12 705	4 235
Quebec	25 740	8 580
Ontario	31 845	10 615
Manitoba	13 860	4 620
Saskatchewan	16 830	5 610
Alberta	20 625	6 875
British Columbia	17 985	5 995
Provincial share (47%)	165 000	55 000
NGO share (3%)	10 000	3 333
Federal share (50%)	175 000	58 333
Total	350 000	116 667

* Provincial shares are proportional to sample size.

All 10 provinces of Canada should be analyzed by:

(1) participation in individual wildlife-related activities,

(2) days engaged in wildlife-related activities,

(3) expenditures on wildlife-related activities, and

(4) attitudes towards wildlife;

with analysis of inter-provincial travel to engage in wildlife-related activities.

Information on the following items should be compiled:

(1) the number of inter-provincial travellers;

(2) a profile of the inter-provincial traveller;

(3) province of residence by province of participation in wildlife-related activities, and

(4) the number of days spent in other provinces engaging in wildlife-related activities.

The compilation of this information will enable the manager of wildlife to gain a better understanding of the diversity of wildlife-related activities within and between provinces and regions of Canada.

5. Recommendations on repeating or modifying the survey in 1986

The completion of the detailed analysis, as proposed in this document, would have allowed the sponsoring agencies to:

- critically assess the data gathered from the 1981 survey,
- comment on the methodology,
- recommend improvements in methodology for future surveys (reducing costs, accelerating process, improving accuracy of data, etc.),
- comment on the future scope of the survey.

These and other comments or assessments will be reflected in the report.

Summary of discussion

G.W. Pepper (Saskatchewan Wildlife Branch) as one of the co-authors, said that the authors would like some feedback from the various jurisdictions, by September, on how useful they found the Highlights report, and how they would see any additional needs being met. There was an extensive, unused data base in the files of Statistics Canada and the opportunity was there to use it. The committee responsible for writing the report wanted some direction on whether or

not the jurisdictions were willing to spend more money, and the authors more time, to proceed with further analysis.

D.A. Poole (Wildlife Management Institute, USA) suggested that the various jurisdictions might wish to ask the authors to consider exploring the question of whether or not the consumptive users of wildlife were something different and apart from the non-consumptive users. He implored everyone to keep in mind that all of their interests could be benefited by striving to work together, rather than seeking to work apart.

F.L. Filion (Canadian Wildlife Service), at the request of A. Smith (Prince Edward Island Fish and Wildlife Division) outlined the original mandate of the committee. His understanding was that with the transmittal of the raw data tape to each of the sponsoring agencies, the original commitments of the committee would be fulfilled. He remarked that the question before them now was whether or not they wanted additional analysis on a collective basis, with or without final publication of it.

The cost-sharing formula will be further discussed at the time of the directors' meeting in September.

Update report
Value of wildlife

FEASIBILITY OF A STUDY ON THE VALUE OF WILDLIFE IN NORTHERN CANADA
Recommendation No. 16

F.L. Filion
Canadian Wildlife Service

A working group composed of Michael Hawkes, Monte Hummel, Hugh Monaghan, Wayne Pepper, and Fern Filion was asked to examine the feasibility of a complementary survey to the "1981 national survey", which would estimate the value of wildlife resources of northern Canada. CWS prepared terms of reference for and arranged a service contract with Dr. Peter Usher for his independent observations and recommendations on the matter. Dr. Usher is widely regarded as an expert on northern human populations. This contract was paid for by the Northwest Territories. Dr. Usher's observations related primarily to the NWT, because the obstacles to conducting a survey there were more serious than elsewhere.

Dr. Usher's observations contributed to the feasibility study by shedding light on the difficulties that must be resolved before going ahead with a survey. These difficulties relate primarily to the distinct characteristics of the native and non-native peoples of the North, and the reasons why they value wildlife. The facts and opinions presented lead to the conclusion that two separate vehicles are required to capture northern wildlife values.

Conclusions

(1) A questionnaire similar to the "1981 national survey", which focused primarily on recreational values, could be administered to a sample of the non-native population residing in large communities (containing about 90% of the population), such as Yellowknife, Fort Smith, and Inuvik. Electoral or telephone lists might possibly be used as a sampling frame, but no estimates of sample size or costs were provided by Dr. Usher. Assuming that acceptable lists are available, I believe that a mail survey based on a sample of 3000 persons might be conducted for approximately $36 000.

(2) Evaluations for the smaller communities (containing about 80% of the native population) could be restricted to commercial, subsistence, and "way of life" values:

   (a) Commercial values - the Government of the Northwest Territories' data might be used to calculate gross receipts to producers, while net values could be estimated following a limited survey of costs in selected communities. This survey might cost approximately $50 000.

   (b) Subsistence values - the volume of subsistence production might be estimated from interviews of local people, such as wildlife officers. Such a survey might cost approximately $10 000. Imputing prices to wildlife products consumed would require a team of technical consultants, which might cost approximately $25 000.

(c) Evaluating the way of life - because of the theoretical and technical difficulties, this would require several workshops of experts. Costs might range from $50 000 to $100 000.

The salary of a co-ordinator (2 person-years at approximately $60 000) would have to be added to the above estimates.

Estimated total costs

Approximate costs for quantifying recreational, commercial, and subsistence values would be around $181 000 over 2 years. Evaluating the "way of life", based on consumptive use of wildlife, might increase the cost to $281 000. Extending the studies to include the Yukon would be likely to increase either total cost estimate by approximately 25%.

THEME: WILDLIFE MANAGEMENT - TODAY AND TOMORROW

Wildlife management (session 1)

TOMORROW: A FEDERAL-PROVINCIAL WILDLIFE MANAGEMENT TEAM

N.M. Simmons (Keynote speaker)
Alberta

One of the people I consulted about this paper encouraged me to "make waves". I intend to do so. What I propose to this conference is the formation of a federal-provincial wildlife management team. Utopian? Perhaps, but I believe that the team would be surprisingly easy to form.

I take heart when I sense the fresh breezes of change wafting between Ottawa and the provinces. The main reason that I have the temerity to propose a federal-provincial team is the speech by Bert Tétreault, Director General of CWS, to the 1982 Federal-Provincial Wildlife Conference (1982. Update report. Canadian Wildlife Service. Trans. Fed.-Prov. Wildl. Conf. 46:29-32). He announced then a review of CWS's roles and responsibilities. What is more, he and his staff have approached the task with open minds and considerable vigour. His understated progress report this morning masks the excitement that he and many of his colleagues feel about undertaking a major overhaul of our wildlife management machinery.

I said many--not all--of his colleagues are excited by the CWS review. The threat of change in any organization causes stress. A period of challenge by those who question the wisdom of change could be viewed as a healthy and useful phase of growth. However, the time for challenge will doubtlessly end soon. A former Secretary of the Interior, Stewart Udall of Arizona, told a conference in Whitehorse this spring that Canadians cannot make decisions. I suspect that Mr. Tétreault will prove him wrong. He no doubt read Peter Larkin's 1979 address to the Federal-Provincial Wildlife Conference entitled, "When in doubt, be careful, but try anyway" (1979. Trans. Fed.-Prov. Wildl. Conf. 43:85-93).

Our honeymoon with our public is long over, and budgets are tight. If the marriage is to do more than merely survive, we must make imaginative changes to the way we do business. What better time to introduce, or reintroduce, the closet topic of federal-provincial team-work?

During the conference, you will talk about the good things that would happen if all the groups represented here could find ways to work together, so I need not expound on the rewards of team-work. What are some of the ways in which we can achieve these rewards? Well co-ordinated, long-range planning among full and equal partners, focusing on role rather than territorial franchise, development of national and regional policy on common issues, and greater public participation in wildlife management should help.

Whether or not I give you grist for debate, I ask you--administrators, biologists, and NGO representatives alike--to challenge yourselves with the question, "why not?", before dismissing any of the following suggestions as impractical.

The task: forming the team

Planning and assessment

I call the proposed federal-provincial team a "management team", and so it would be in a sense. You might relate to the idea better if it were called a "planning and assessment team", for indeed those would be its major activities. The team would anticipate, define, and address issues, sort out roles, design co-operative approaches to issues, and assess results of team-work.

Implementation

We have flirted with federal-provincial planning and assessment, sometimes successfully. We can point with pride to the results of long-range planning conducted during past Federal-Provincial Wildlife Conferences, meetings of wildlife advisory committees, and less formal bilateral discussions. Wildlife directors and others have proven to be rich storehouses of experiences with solutions to common problems. However, the advisory committees have more often served as forums for squabbling and fighting brushfires.

I understand that the old regional advisory committees and directors' subcommittees have wound down. I would like to see those committees reconstituted, but this time as part of a hierarchy of regional planning organizations. At the apex of this planning pyramid would be our political masters in the form of a "national advisory committee" and the Conference of Wildlife Ministers. Filtering up to these national committees would be such planning agenda items of national interest as the fur trade, co-ordinated habitat management, the production of national wildlife status reports, and hunting by natives. Regional issues would not concern the national committee and conference.

Why not regroup under a planning banner? Too expensive? The regional committees would have to meet twice a year to be effective. Is the brushfire-fighting approach not much more expensive? In fact, tight budgets should force administrators to check their guns (prejudices) at the door and find common grounds for planning.

Tasks for the planning committees

Agreement on roles

A recurring issue before the members of the proposed planning and assessment committees would be definition of and agreement on roles. This would be far more productive than discouraging debates over mandates. Mr. Tétreault already set the tone in his 1982 speech to this conference, when he said: "I envisage that together the federal, provincial, and territorial government people and NGOs will clarify who is best equipped to handle each of these tasks, will divide up the labour equitably, and then co-operate to accomplish much more.". I cannot suggest a universal formula; rather roles would be defined province-by-province, region-by-region. The focus would be on efficiency and effectiveness.

Our Alberta and CWS hosts have already set the example by putting aside the question of mandate. They are well into negotiations on joint migratory bird management. I am sure that the provincial directors here share CWS's hope expressed this morning that the eventual agreement will serve as a model for other

provinces. As an outsider, I can only speculate on the principles underlying the negotiations:

(1) The province is most responsive to public needs and best able to shape public attitudes and behaviour.

(2) The province has the staff in the field best equipped to deliver quality service.

(3) The federal government must maintain a strong presence as national trustee of our wildlife resources (while fully honouring the spirit of the resource transfer agreements), setting national standards in legislation, leading the Canadian team in the North American dialogue, conducting long-range research, and enforcing international agreements.

These principles would fit future negotiations with other provinces and the territories. Role definition could be ratified by informal bilateral agreements or, when provincial or federal treasurers became concerned, by formal agreements under the Canada Wildlife Act.

Policy development

I have been unable to identify a well defined mechanism that exists for developing regional and national wildlife management policy. The proposed planning and assessment pyramid could serve that purpose.

What kinds of issues would regional and national planners address? A few policy questions that might draw the early attention of planning committees are:

(1) Administering the Migratory Birds Convention Act (MBCA) in Canada's northland. We cannot continue to ignore the inequities of enforcement of the MBCA regulations in the Arctic and Sub-arctic, yet the implications of change are of great concern to the provinces.

(2) Land-use planning and integrated resource management. The 1981 federal "Policy on land use" states that "between governments and within any government, harmony of policies and programs that affect land is fundamental to dealing with land-use problems.". The policy emphasizes a co-operative, federal-provincial approach that could be developed within the planning pyramid. To me, this policy means a co-ordinating role for CWS within the provinces. In the territories, this means CWS plugging into the Department of Indian Affairs and Northern Development's and the territories' land-use planning structures, and contributing to their conservation strategy for the North.

On the provincial scene, our Alberta hosts have published their excellent "East Slope policy", essentially a plan for integrated resource management. Federal lands should be included in a joint policy. The Alberta Department of Energy and Natural Resources' internal referral system encourages integration of policies and management practices, and could serve as an example to other provinces and the federal government.

(3) Crop damage by wildlife. Surely the provinces and the federal government can back off from this eternally annoying issue and find common ground for a new start.

(4) Habitat management. Except for a few shining examples, we have not adequately involved other agencies and industry in policy and program development. Managers should look closely at the new "Alberta wildlife policy" and at Alberta's multi-agency research on forest and wildlife management for examples of integrated habitat management efforts.

I must admit that, even in the absence of tidy planning structures, the people gathered here have witnessed some laudable examples of development of national policy in the "Waterfowl management plan", Perigrine Falcon management, and in trade and transportation of endangered species. Perhaps success resulted from a belief that the provinces, territories, and federal government were full and active partners in policy development. In Canada, a perception of full partnership in policy development spells long-term co-operation.

NGOs as team members

I have left the most important component of the federal-provincial team, the NGOs, until last. There are already some building blocks available, most represented in this room, that may be used for constructing a planning and assessment structure. We have local, provincial, and national associations, and federal and provincial advisory councils, all interested in wildlife management. Some are government-funded, most are government-supported. All will agree that they are "involved" in wildlife management. Do these organizations believe that their involvement is sufficient? Perhaps not in the provinces; certainly not in the territories. I suspect that all would leap at the opportunity to participate in the government planning and assessment process, were formal structures to include them.

Why not include NGOs in the planning structure? Could we not follow the Alaska Game and Fish Board's model, in which the state funds NGO representatives to attend board meetings, or examine progress towards devolution in the Northwest Territories? Should we not seriously consider regularly using this conference as a national forum for public participation in planning and assessment? Topics could be introduced one year and, after a year of preparation, discussed and resolved during the following conference. Are these ways too expensive? They will be costly indeed, but are there not greater operational and political costs in shunning public participation? The Northwest Territories and Alaska believe so. Of course, if NGOs became members of the planning teams, they would press for participation in program delivery as well. They might point to other provinces, territories, and countries where NGOs are funded by governments to:

(1) administer programs,

(2) decide on seasons and quotas, and

(3) write regulations.

Now that's participation!

Is our reluctance to permit NGO participation well reasoned? What do we fear? Ultimate government control would be retained, firmly rooted in legislation and tied to the will of the electorate. Current legislation would permit such participation by NGOs in most jurisdictions.

Examples of commendable participation by NGOs in government programs can easily be found. Alberta has experimented with compensating landowners who set aside land for wildlife in Red Deer County. The money comes from their "Buck for wildlife" program. The money is turned over to the municipalities; farmers run the show. It has been a rousing success. NGOs obtain pheasants from the government hatchery at Brooks, Alta., and raise them for release in the wild. In neighbouring Saskatchewan, the government is working with the Saskatchewan Wildlife Federation and the Canadian Wildlife Federation to preserve and improve wetlands. In Quebec, the Quebec Wildlife Federation administers the hunters' training program. Nevertheless, examples of NGO participation in planning are not as easily found.

Some of you may have heard that as early as 1975 the Government of the Northwest Territories took a cautious step towards public participation in developing wildlife management policy and legislation. The Commissioner of the Northwest Territories created the Game Advisory Council. The council reported directly to the Commissioner, not to the Wildlife Service. Members were Dene, Inuit, and non-native hunters, trappers, sportsmen, and naturalists. To my pleasure, and the amazement of some of my territorial colleagues, the council went through a surprisingly short period of political posturing, but then got down to the serious business of writing a new ordinance and regulations and addressing community concerns. The council did well, better than the Wildlife Service could have done alone. The ordinance is a good one, perhaps one of the best in Canada. Buoyed by this success, the NWT Department of Renewable Resources has explored other avenues of devolution, such as that suggested by the Alaskan experience with independent boards.

Public participation must be informed participation to be effective, just as government planning and administration must reflect an informed view of public opinions and needs. Some time ago, Canadian wildlife administrators discussed information and education (I and E) programs, agreed that they were necessary, and resolved to improve performance. Improvement has been spotty; in some jurisdictions, including CWS, we regressed. We are still a way behind the USA in this area. Now that budgets are painfully squeezed, I and E programs seem to be the first cut. Isn't that backwards? The informed public is a supportive public, and support is usually reflected in budget strength. What pleasure I experienced when in budget session after budget session the NWT Department of Renewable Resources was chastized by MLAs for not asking for more money and person-years. I suspect that this was a direct result of support from the communities.

Wildlife agency extension programs in several jurisdictions--Manitoba and the Northwest Territories focusing on wildlife education at the grade school level (and that is where the action should be); Manitoba, Ontario, and British Columbia co-operating in developing a comprehensive plan for National Wildlife Week; and Alberta working with students on hunters' training--are all good examples of what can be done in public I and E. Public education has been and will be addressed during this conference by qualified commentators such as Ken Brynaert and Norm Gaelick.

You may ask about the rewards of such courageous changes in policy and tradition as I propose. I have mentioned some by example. Have we not already recognized here that members of our profession must find ways of broadening our base of public support through public information and education programs, and public

participation in planning and management? Otherwise, defence of government programs will continue to demand more and more time and resources that could be better devoted to the broader goal of managing wildlife for human benefit.

Summary and conclusion

What I have proposed here, both simply and complexly, is the institution of a federal-provincial wildlife management team. It would be a hierarchy of organizations beginning at the provincial/regional level and culminating in the present national Conference of Wildlife Ministers. The committees would be founded on a planning and assessment format. There would be a mechanism for well-informed NGO participation. Whether or not these suggestions survive this conference, I am confident that you people of good-will will complement the CWS initiative and usher in a new era of federal-provincial team-work. Let's join them in making waves.

Wildlife management (session 1)

IS WILDLIFE MANAGEMENT UNIQUE?

G. Kerr, Director,
Western and Northern Region,
Canadian Wildlife Service

Our speakers for this session are Bob Scammell, Dennis Surrendi, Monte Hummel, and Hugh Monaghan. Before introducing them, I would like to seize this opportunity to try and give you a sketchy overview, perhaps a reminder, of the basis of the theme for this conference. I think our keynote speaker has captured it very well, and I would like to congratulate Norm Simmons on an excellent paper.

The sessions

As you know, the theme of our conference is "Wildlife management - Today and tomorrow". We are hoping that "today" will be a short discussion, and rather that we will be looking towards "tomorrow" as a thought-provoking exercise. Well, Norm Simmons has certainly done that. He threw some rocks at us all, but he also put together some ideas on how we might proceed in the future and the things we should think about.

Of the three sessions this afternoon and tomorrow, the one before us now asks the question, "Is wildlife management unique?". We will be trying in this session to deal somewhat with the "today" situation; how we got here and where we should proceed. Today, governments carry out wildlife management, operating from the standpoint or basis of law. We would like then to have some perspective on the legal question in our first paper by Mr. Scammell. Governments also react very much to public opinion, and more and more the opinion of organized members of the public--public groups. We are looking, then, for a bit of public perception on how well we are doing in the second paper by Mr. Hummel. A future perspective will be given by Mr. Surrendi, as he outlines some of the options that government sees as possibly viable. I suspect that he will throw in some things that groups other than government might do as well. We had hoped to have Don Robinson of British Columbia with us, to give us an insight as to how governments are going to meet responsibilities with less money. However, in view of his inability to be here, we have Hugh Monaghan to pinch-hit for Don.

In the next two sessions we will look more at the new roles of people generally in wildlife management; most particularly the role of industry. When we look at the resource management picture across Canada, or most countries of the world, we find that many resources have an industrial back-up support--in fact, an industrial management group. If we look at the grasslands of the world, they are managed by the agricultural industry. If we look at the forested areas of the world, they are backed up by a forest industry. But, as we look at the wildlife resources of the world, they do not have that same industrial back-up. So we might ask ourselves if there is a place for a greater role for industry in wildlife management.

In our third session, again as forward-looking as the industrial one, I hope, we will ask ourselves how public groups, be they individuals or organizations, might

become more actively partners in wildlife management. We are looking to hear the perceptions of that involvement from various groups.

The speakers

Our first speaker to the question, "Is wildlife management unique?", gives a legal perspective. Many of you will know Bob Scammell from his many years of involvement in the conservation movement in Alberta. He is an outdoor writer, both in the news media and magazines. He is an ardent advocate on behalf of wildlife and fisheries, and an ardent sportsman. He has been involved very deeply in the Canadian Wildlife Federation, as well as being Past-president of the Alberta Fish and Game Association. He is also an accomplished lawyer with a particular interest in resource law. Perhaps he will provide us with some insight as to the legal basis for wildlife management, at least in Alberta, if not Canada.

Our second speaker, Monte Hummel is no doubt best known as the Executive Director of the World Wildlife Fund Canada, but his associations with wildlife management and wildlife conservation go far beyond that. He hails from Toronto and Ontario. He is a member of the Canadian Environment Advisory Council. He is a founder and director of the Pollution Probe Foundation, Algonquin Wetlands League, Canadian Coalition on Acid Rain, Canadian Council on Ecological Areas, Arctic International Wildlife Range Society, and Ontario Heritage League, and an honorary fellow of the University of Toronto, and much more. Suffice it to say that he is involved in a great many ways. He is one of the better-known individuals in terms of wildlife funding programs for a great variety of conservation causes in Canada and throughout the world. I think his perception of how he sees wildlife management should be of meaning to us.

In view of Monte Hummel's topic, a public perception of wildlife management, let me take this opportunity to remind you of remarks made here earlier. Norm Simmons proposed that we should be able to create a federal-provincial and NGO co-ordinated management team in Canada. I would like you to bear that thought in mind, because it is also a goal of the conference to try to accomplish that sort of thinking. I also want to bring you back to the words of Bert Tétreault, when he proposed to develop, through consultation, more formalized and clear and efficient roles for the various interest groups in wildlife in Canada--be they from federal, provincial, or local government, or the organized users, interest groups, and so on.

Our third speaker, following Monte Hummel, is Dennis Surrendi, who, I will speculate, is going to look at perspectives for the future as government may see them. Perhaps this will reflect as well on how he sees all the interest groups and the people with a vested interest in wildlife in Canada beginning to work as a co-ordinated team. Dennis Surrendi has been in the wildlife management field for a good number of years--in the federal government, the Government of Manitoba, and now the Government of Alberta. He is now the Assistant Deputy Minister responsible for the Fish and Wildlife Division in the province.

Finally, I would like to introduce Hugh Monaghan, who is the Assistant Deputy Minister, Renewable Resources, for the Government of the Northwest Territories. While Hugh originates from Alberta, I think, at least in wildlife circles, that he has become known as "the man from the territories". Hugh has been in wildlife

circles for many years, he has always been a strong advocate of wildlife conservation. He has been particularly a strong advocate for people-use opportunities in wildlife. He has had the opportunity to view the resource more on a true people-benefit basis than most of us, and has been a promoter of territorial authority. I want to thank him for so readily volunteering to pinch-hit for Don Robinson.

(After the speakers had given their papers, Mr. Kerr resumed.)

Summing up

Only a couple of themes came through to me over the course of the four very good papers. The basic one was the need to involve people in wildlife management. That was reflected in the needs of people through law, in the need to get the job done on the land, and again in the thoughts of our political masters, who pass the laws and approve the programs. That all reflects public opinion.

It was interesting in the last paper (Don Robinson's) that British Columbia may have perhaps found some insight into a way to get industry to become the manager, the producer, and, perhaps in a way, to benefit the public without fear of this becoming strictly a private-industry profit and a public-property loss situation.

The need for people's involvement and integrated resource management, together with the highest level of commitment of our elected representatives working for a place for wildlife, is the necessary way of things. We have had some perceptions of wildlife interest and people's views of wildlife managers, but I think the message Monte Hummel left us with is that "we need to be more of a co-ordinated team--it is not the people wanting to throw rocks, it is the people asking for involvement".

Wildlife management (session 1)
Is wildlife management unique?

A LEGAL PERSPECTIVE

R.H. Scammell, QC
Barrister and Solicitor,
Alberta

Trying to discover the principles upon which wildlife laws are based by examining modern game or wildlife acts is like trying to explain a seed by describing a forest. The complexity of the modern acts is notorious, frequently a scandal. Efforts everywhere are underway, including here in Alberta, to simplify them. Unfortunately, there is a danger everywhere that the verity is discarded with the verbiage. The cliché is that one who does not know one's history is doomed to repeat it. My experience, and this is no insult, is that wildlife managers know little history. Thus, the search for whatever might be unique in game or wildlife law is more than a diversion for an ageing lawyer, it can provide a benchmark, horizon, or warning about what we are doing with our wildlife acts in aid of the social engineering that seems sometimes to pass for wildlife management in the modern era.

Management's progress

Historically, as Leopold pointed out, game management invariably has its beginnings in control of the hunting factor, and progresses as follows:

(1) restriction of hunting,

(2) predator control,

(3) reservation of game land,

(4) artificial replenishment,

(5) environmental controls.

A wag might add there seems to be a sixth stage in the progression, in which the modern game manager doubts everything, throws out the whole mess, and opens the whole resource up for grabs again, including the land-base, to the highest bidder.

Many learned works speculate that tribal taboos are the origin of hunting customs that, in turn, are the origin of modern game laws. No evidence is ever given for this hypothesis. There is much evidence to the contrary. With regard, particularly, to our own "tribes", the literature is virtually silent on any taboos controlling hunting. Certainly there is all manner of ritual concerned with gratitude to the gods, saying farewell to the departing spirit of the dead creature, and apologizing for your own hunger. In fact, reading this sort of thing, I find a remarkable similarity to the rituals and ceremonies, the horns at dawn preceding and the hymns at sundown following a slaughter of driven game in modern Germany.

Many of us, certainly our natives, are hunters and descendants of hunters. We carry in our genes the instincts and attitudes of our ancestors. This is not meant as criticism of anyone, except those who glibly assert that the origin of game law is tribal taboo; but simply spend some time hunting with our natives today or read the work of those who have done so in the past, and then see if you really believe tribal taboos anywhere have anything to do with control of hunting.

The reason is simple. Second only to water, food is fundamental to the continued existence of people. Necessity, another cliché asserts, knows no law. The hungry person or tribe could never put a nice point on how many of anything was taken or how. Look at the well-know methods of taking game for food of some of our own tribes. Efficiency is the by-word, not conservation, and sport is not even considered. Additionally, in the pure native life, there would also be little need for concern. Feast or famine were natural facts of life, the former to be celebrated and the latter to be endured.

Our natives had no concept of ownership of living game, and would scorn the very thought. Custom decreed that you went to where the game was when it was there, thus our natives were a nomadic people. They also believed that no person or persons own the land. They were nevertheless territorial, and fought wars over their traditional hunting areas and brutally punished trespassers.

Fundamental to our modern game law, then, are a couple of unique factors that have been present as long as we have had people and game, and far longer than we have had any game law: that we are dealing with the one resource, excepting water, that is most essential to human existence, and that this is the one resource that is capable of moving with at least a consciousness, if not actually with a will, of its own. Think about it, it is important. Sure, the liquid and gaseous resources move, but without will or consciousness of their own, and merely in obedience to well-known physical laws. Water, in many jurisdictions, is a Crown or state asset, as are the beds and shores of rivers, lakes, and streams: these, and the water itself, are often on private land, yet we have laws preventing a landowner from using all the water, or damming and confining it, or diverting it elsewhere. Is water more essential than the living river of living food? (An apt simile for anyone who has seen the caribou migrate.) Because, throughout our history, game law has evolved simply as an attempt to fence the wild game in or fence the people out.

Often cited as the first written restriction on the taking of game is Deuteronomy 22:6, in which Moses decrees:

> If a bird's nest chance to be before thee in the way, in any tree or on the ground, with young ones or eggs, and the dam sitting upon the young, or upon the eggs, thou shalt not take the dam with the young: thou shalt in any wise let the dam go, but the young thou mayest take unto thyself; that it may be well with thee, and that thou mayest prolong thy days.

It sounds like something right out of the Migratory Birds Convention Act, certainly an appropriate decree coming from a gentleman reputed to have been born in the bullrushes. Now, I do not wish to seem cynical, but I have never found anything so out of context as this verse from Deuteronomy. The whole of Deuteronomy 22 deals almost exclusively with two things--farming and running around with women--and this strange sixth verse seems almost to be advice on what a man should take home for breakfast, when leaving the women and getting back to the land.

The Egyptians were keen hunters and fishers, but there is no record that they were concerned with the conservation of species or sport. Solon forbade the Athenians to hunt, not for any conservation purposes, but because, basically, it wasted time they could spend more profitably otherwise. Justinian, the Roman emperor, recognized the right of a landowner to prevent another from killing game on one's property, but this was a law concerned in pith and substance with trespass, not conservation. This Roman concept, as we shall see, remains important today in many of our jurisdictions.

New concept

Thus, a new concept enters into the issue, a concept that makes game management and law unique among all resource management initiatives: the taking of game, the resource, may be necessary for food, but, unlike so many of our other resource-gathering chores, taking game can be fun, recreation, a pastime, sport so beguiling that it could distract one from all other duties and lead one to trespass onto the property of another.

The most developed system of game management, with the law in aid, was developed, not in Europe, but in the Mongol empire, as described by Marco Polo in "The Great Khan":

> There is an order which prohibits every person throughout all the country subject to the Great Khan, from daring to kill hares, roebucks, fallow deer, stags, or other animals of that kind, or any large birds, between the months of March and October. This is that they may increase and multiply; and as the breach of this order is attended with punishment, game of every description increases prodigiously.

The Kublai Khan added preserves and management schemes, feeding, shelter, and habitat control to his law, but Marco Polo makes it obvious that all was for the benefit of Kublai and his sport, not that of the masses, or, indeed, anyone else.

Thus is added the unique factor to our game law over that of many other resources, the concept of a resource belonging to the ruler, as many of our resources in North America now do. In feudal Europe, the regulation of hunting by custom, generally, not law, solely in the interest of the ruling class, was so stringent, the punishment so severe, that the rebellion of the yeomen (i.e., Robin Hood in Nottingham forest) was one of the forces that overthrew the feudal system. It was also in this era that the war on "predators" started, which ultimately resulted in the permanent extirpation of much wildlife in England. So, too, in this time, was established the private game-preserve concept solely for the delectation of the privileged.

Thus arose other unique aspects of game law: that it was thought that a resource, game, could be increased by killing "varmints" and that the game could be fenced in and reserved to the privileged; that the common people felt so strongly about this that they were willing to contest with the privileged for the right to hunt.

The hunting parks, forests, and reservations for the privileged gradually evolved into the idea of protecting every landowner against trespass as an incentive to manage the game. Thus evolved a seminal development in our game law, the poacher, and the savage trespass penalties to govern such activities. In this era was born the raison d'être of all European game management: the improvement of

hunting by the private landowner for personal benefit and that of invited guests, paying and unpaying. This was the only system that could work in a society in which all of the land was owned by the privileged few. If the game was to be managed at all, it must, as with trees, be done by the owner of the freehold, who must have some incentive to do it. Thus, it is frequently noted, there is virtually no fishery or wildlife law, or very little, in England to this day: the landowners set the rules.

These traditions were established in England about the time that North America was settled, and themselves inspired some settlement. As late as 1922, for example, my father would come to Canada partly because something in his blood rebelled at the concept that he was neither good nor rich enough to hunt and fish in England. There is some justification in legal history and theory for such feelings. Under Roman, or the civil law, things were classified public and common. Things common included ferae naturae, which, being creatures wild by nature and with no owner, were considered as belonging in common to all citizens of the state. This same concept is found in the common law, where it is held that property in ferae naturae, animals having no animus revertendi, or inclination to return to domesticity, are for the person who can bring them into possession. Thus, there is the sound principle of two legal systems behind the well-know British poacher's dictum: "the gyme belongs to 'im as can bring it to 'and."

After the Norman conquest, ownership of wild game was in the king in his individual capacity as a personal prerogative. At Runnymede, where the Magna Carta was extracted from King John in 1215, one of the crucial items dealt with was game and hunting. Since then it has been established in England that the wild game is owned by the king in his sovereign capacity, but in "sacred trust" for the people.

Thus was sculpted in stone the principle that has now been moulded in malleable, ever-amendable, silly putty in so many of our North American wildlife acts. One frequently hears that the situations in North America and England are different concerning the ownership of the game, but that is not the case. In Canada the game is owned by the Crown, in the US by the state, and the scheme of most acts is that the possession of the game may be had only as provided by the acts. Frequent provisions are that neither the game itself, nor the right to hunt it, may be sold by anyone, including a private landowner. In England, the landowner, while not owning the live game on the land, is permitted, in season, to sell the rights to shoot it, is protected by those severe trespass laws, and, when the game is dead, is permitted to sell the meat, too. Thus, the only ones who are allowed to "bring to 'and" the game that belongs to everyone on private land in England are the landowner, invitees, and licencees. Need I mention that there is virtually no public land in England?

Common property

Many of the people who came to North America were at least imbued with the common law concepts that property in game belongs to all in common through the Crown, and that possession belongs to those who can catch it. The view of many was utter disdain for the rules of the gentry and their gamekeepers. Generally, the plague of exotic humanity that descended on the Canadian West as settlers was the hungriest horde of displaced poachers ever to be collected in one place on earth at one time. It is of significance to examine, in the context of only one species,

how a wildlife act evolved to meet the situation with the natives, the exotic poachers, and combinations and permutations of them.

The conduct of the buffalo hunt, by the greatest of the buffalo hunters, the Métis, was governed by informal rules. Penalties for breaking the rules were ridicule, ostracization, and beating. By 1875, the rules of the hunt had expanded to 25 in number, and for the first time contained prohibitions against wasting carcasses or killing buffalo solely for robes or tongues. For the first time, these practical hunters' rules betrayed some justified concern for the future. In 1887, the Council of the Northwest Territories had to pass a strict law aimed at the preservation of the buffalo. The law provided penalties for waste, prohibited use of pounds or jumps, actually attempted to put limits on how many buffalo any one hunter could kill, prohibited slaughter for amusement or "solely to secure their tongues, choice cuts, or peltries", and for the first time prohibited the killing of cow buffalo in certain seasons, and the killing of calves under 2 years.

The very next year, in 1888, this law was repealed. The constituents did not like it. The Indians objected because the buffalo were the gifts of their gods, their manitous, and the whites had no right to interfere. The Métis objected, despite the rules they kept voluntarily governing their own hunts, because they felt the law discriminated against them in favour of the Indians. The whites, of course, were not about to put up with laws of any kind. Does it add perspective to know that the last buffalo was killed on the banks of the Red Deer River in 1886, 1 year before the law protecting buffalo was passed, and 2 years before it was repealed?

So there we have a brief model for the development of the Game Ordinance in the Northwest Territories, out of which have come the game acts of no less than three Canadian provinces and one present territory. My suggestion is that the experience is typical and illustrates another fact about game laws that is unique in North America, in that they were conceived by necessity to meet a crisis; a device, as Leopold points out, for dividing up a dwindling treasure which nature, rather than man, has produced; and the policy of division strongly reflected the democratic ideas of the people who came here, ideas upon which our political system, in fact, is founded. The North American game law, Leopold flatly asserts, "was something new under the sun: a game system based on an equally distributed citizenship, rather than, as in Europe, on an unequally distributed land-ownership.".

Since then, certainly, we have been through all five of the stages in game law that Leopold speaks of. A modern trend has been to include all wildlife, not just game species, in our acts. Where are we going in North America with many of our acts? Earlier I suggested, waggishly, that there is a sixth stage where we tear down the whole system and replace it with something else. The hot innovation today is going back to the European system so many of the early settlers in America came here to avoid. Hunting was freedom. Most of the land was public. The game was abundant. You could go anywhere to take it or wait until it came to you. Early territorial law and, until fairly recently, Alberta law, was unique in that it provided that landowners had no right to exclude you from their land if you were hunting. To this very day, Alberta law provides that the owners have no right to stop me from hunting if the land of theirs on which I want to hunt is at least a mile from the land on which they actually reside.

Perhaps we have gone too far. The modern trend is that more and more land is being concentrated in fewer and fewer owners, and more and more owners are acquiring small-holdings. It amazes me how peasant and poacher can regress, in one generation, and with only one small piece of land, to "lord of the manor" with an incurable squire complex. At any rate, there is considerable justifiable outcry against our slip-shod trespass laws. One group of landowners near Calgary, many from the "old country", even goes so far as to suggest that hunting be abolished in their area for everyone except, of course, themselves--the landowners.

Demand for privatizing

There is the additional problem of the 54% of Alberta that is public land, the ownership of which is precisely like the game--in the Crown for the people of Alberta. Some problem! But we persist in regarding a priceless treasure as a problem.

The people of Alberta are permitted to make many lawful uses of public land and, by the licences they buy, in particular are allowed to pursue game on public land without asking anyone other than the representative of the Crown. The new landed gentry, many of whom lease public land for its grass, lobby for the privatization of their lease land. They want to exclude hunters from public land, something they have no right to do on much of the land that they now actually own outright in fee simple.

In much of North America, there is gathering evidence of giving in to such demands. In most jurisdictions, the government displays the common attitude of giving everyone more of everything than they asked for. Stronger trespass law is being asked for on private land, and that is essential, but instead we start debating and enacting schemes to farm game and to sell hunting rights. As soon as we even talk that way, many people want some of that public land, and the same rights on public land, even if they only lease it from the Crown, which is to say, from us, the people. Talk is always cheap, except when you listen and act on it. The Watt land-rush is notorious in the USA and we all know that, when someone sneezes in the USA, someone in Canada, 5 years later, is going to say gesundheit.

There are many disadvantages to turning game management on private land over to the private landowner, not the least of which, for this audience, is that the professional wildlife manager is no longer needed. There is no wildlife management on private land, only animal husbandry, carried out by gamekeepers with very pragmatic approaches, one result of which is that, in the drive to maximize profit, other wildlife, the so-called "predators", suffer terribly. Predators are unprofitable. Leopold points out that this form of management also sacrifices migratory to resident game; game-proof fences are expensive, if not impossible. In addition, the sport suffers. The traditional free and challenging way in which North Americans have been able to hunt is prohibited. A grouse-shoot in England is just that: a shoot, and not a hunt. It is a harvest, and a recreation only in the mind of those who are dull and rich enough to afford it. Leopold states it as a rule: "The recreational value of game is inverse to the artificiality of its origin, and hence, in a broad way, to the degree of control exercised in its production."

It is not the subject of this paper, but there are other ways to encourage private landowners, if not to manage, at least to welcome the presence of wild game on

their property. If, however, government game managers are determined to go back centuries to the feudal systems on private land, then so be it, with all its disadvantages, including that what sport there is to be had on private land is the preserve of the rich and idle, a result not at all in accord with the democratic principles on which most of North America was founded.

That is one thing, but it is quite another to give in to the trend of privatization of public land, so as to create an artificial demand for the product of the businesses you create on private land. That is immoral, undemocratic, and stupid. As an aside, it always seems bitterly absurd to me that I can be told over and over again that it is undemocratic to limit the numbers of hunters by mandatory hunters' training, and in the next breath be told there is nothing wrong with limiting hunting to those who can afford the high prices for it that are generally charged wherever charging is legal. When I know what is being done with public land elsewhere, and suspect what is going to be done with it here, I can actually thank God for the new Charter of Rights in Canada. That is another subject not for this paper, but if you think the charter will not have any effect on game law, I suggest you think again. The charter deals with human freedom, and North American game laws have evolved around a laudable concept of human freedom.

If, however, I and other free-spirited hunters cannot invoke the charter to protect some of our traditional rights against the "management incentives" being proposed, which are really expropriations of public land, then there is always another final resort, another unique aspect of game management through game law. Jose Ortega y Gassett, the modern philosopher of hunting, in his classic "Meditations on hunting", warns that bitterness always existed among the peasantry of Europe about the hunting privilege, and that in fact revolutions have been fought over it. Most of us here today descend from the peasantry of Europe.

Wildlife management (session 1)
Is wildlife management unique?

A PRESENT PERSPECTIVE

M. Hummel
Executive Director,
World Wildlife Fund Canada

The theme of this first session is supposed to be "Is wildlife management unique?". I noticed that Gordon Keer was asked to comment on why wildlife management is unique. This, of course, seems to assume that it is, but I am not so sure.

To illustrate my point, I can well remember Maurice Strong saying to me, "You don't run a business by running down your capital, by refusing to make any allowance for depreciation, or by neglecting the job of long-term planning. Yet, that's exactly what we're doing with the Earth's natural resources." According to Strong, our treatment of the planet, if nothing else, is bad business--bad management.

I understood Maurice Strong to say that if the principles of running a sustainable business were applied to wildlife or, for that matter, if the principles of good wildlife management were applied to business, both would be a lot better off. In fact, he was going further than that. He was saying that we can no longer afford to disregard these principles in either business or wildlife management. In other words, business and wildlife managers should have a great deal in common.

But, when you think about it, we are running down our natural capital every time we over-harvest wildlife, or when we dip into the Earth's hydrocarbon reserves rather than live off the energy income provided by daily sunlight. We do not make any allowance for depreciation of natural stocks, because our cash accounting systems disregard entire populations, species, or habitats that have been written off. And, though we all go through the ritual of saying it is wrong, we still make short-term decisions that sneak up on us in a cumulative way and lead to serious long-term problems, because our original planning horizon was too short-sighted.

Is wildlife management unique? Is it really based on some special set of principles that are not shared by other professional managers? As I say, I am not so sure.

There is no doubt that we like to think we have unique problems and approaches. For example, every year at this conference we hear about wildlife managers having to deal with public participation in policy formulation (public sensitivity or reaction to decisions once they are made), making decisions or best guesses based on limited research information, defining objectives, evaluating progress, managing expanding programs within constricting budgets, and dealing with living organisms or populations that can be completely unpredictable. But let's face it, these kinds of problems are faced by many other professional managers. They are not unique to us.

However, I think there may be some aspects that we experience to a greater degree than other managers. In this regard, perhaps wildlife managers have a unique mix of concerns. Three aspects deserve mention.

1. Understanding public opinion

If you really take time to probe people's concern for wildlife, the reasons are usually quite diverse and somewhat confused:

- Some groups, such as the World Wildlife Fund (WWF), tend to focus concern on the population or species. We argue that this is the unit that must above all be conserved or maintained on a sustainable basis.

- Others object to waste and inefficiency. They do not object to using wildlife as a resource, but they cannot stand the way we take it for granted.

- Some people argue from a scientific motivation. They feel that we are undercutting our human knowledge base by mismanaging wildlife. Some scientists go further by saying that our very survival is at stake. In essence they say that the future of wildlife is our future.

- Some people argue from the standpoint of utility. They believe that losing wildlife species represents a loss of options; we are losing products and things of great usefulness to man before we even discover them.

- Some people do not want to use wildlife in this way, or at all. But they derive great psychological value from simply knowing that it is "out there" somewhere.

- Some people are concerned, not about use or killing as such, but humane killing.

- And, of course, some people do not want any wild things to be killed. But does that include plants or insects or fish?

- Others are concerned from an artistic, a recreational, or a spiritual perspective, or a cultural perspective, or you-name-it.

How, you ask, is a wildlife manager supposed to respond to public interest when the public interest is all over the map? I think this is a serious question. I think the diversity of public opinion to which we are expected to respond is somewhat unique. Of course, wildlife managers react by saying that the public must clarify its concerns. But really, what we do is judge which of these concerns are legitimate, and then try to respond to those that we consider important. In this respect, we probably behave much like any other professional manager, and consequently we are not really unique.

2. The cult of expertise

Wildlife managers are certainly not the only ones who do this, but we are particularly annoying in the way we insist that a small clique of professionals is the only group knowledgeable about wildlife concerns. The public, by and large, must be "educated" to come up to our high level of understanding.

Apart from the sheer arrogance of such thinking, it only serves to cut off the so-called professional elite from a large and influential body of public support. More often it is the case that professional managers should work harder to live up to the high expectations and level of awareness of the public. A good manager, after all, is a good listener. He is always alert to a good idea that

will improve the quality of his information and decisions. That is the opportunity as opposed to the problem posed by effective public participation.

Ask yourself this question: "Do I really believe that I make better decisions because of public input, or would I rather be left alone so that those of us who know what we are doing can get on with the job?".

3. Certainty beyond what is known

Wildlife management is often called an art rather than a science. To me this suggests that a great deal of it is based on hunches, intuition, experience, and even good luck rather than a body of knowledge that is relatively certain and scientific.

Yet, wildlife managers make decisions, or perhaps we are forced to make decisions, that result in large-scale impacts on natural systems without really understanding the consequences: broadcast wolf poisoning is an example. Another, drawn from my own field of forestry, is clear-cutting. I have never really felt comfortable with our knowledge about the impact of clear-cutting, even though I know it is supposed to imitate natural disturbances such as fire or wind-throw. Yet, every year, we alter the forest cover on a massive scale by clear-cutting species such as Douglas fir, lodgepole pine, jack pine, and black spruce in Canada, not to mention the conversion of the tropical forest to rangeland (or wasteland) by misapplying temperate forest silvicultural techniques to tropical ecosystems.

The point is that our present management interventions far exceed our ability to understand the impacts, or to predict results. We all need a good dose of humility. Disraeli actually paraphrased Plato when he said, "To be conscious that you are ignorant is a great start towards knowledge.". A little humility would go a long way to solving all three of the challenges presently facing wildlife management that I have just described: "understanding public opinion", "the cult of expertise", and "certainty beyond what is known".

Different approaches

Many of these attitudes originate in Canada from the fact that we are still a remarkably wildlife-rich country. Canada has options and conservation opportunities lost long ago by Europe, and even the United States.

For example, in Europe, and certainly in the Far East, people are shocked by the level of wildlife waste in Canada. How can we skin all those fur-bearers and leave the carcasses to rot? How can we leave all those tops, limbs, and stumps of timber in the bush, when paper is so expensive in the rest of the world? Chinese visitors to North America are impressed first and foremost, not with our freedom of the press, with our colourful clothes or cars, but with the way we waste seemingly everything.

In Europe, there is obviously more emphasis on humane killing. Poisoning of predators, for example, is now universally unacceptable there. Concern for humane treatment also reflects the European view that the individual animal deserves as much, if not more attention, than the population or species.

As a rule, there are no spring hunting seasons in Europe, in contrast, for example, to our beloved seal hunt or our spring bear seasons. It has been drummed into

Europeans that you do not deplete wildlife populations at this very sensitive reproductive stage in the life-cycle.

I realize that many of these ideas are technically debatable. But I offer them simply as examples of the different kinds of ethic and approach to wildlife management that exist currently in a setting where wildlife is seen as fundamentally scarce. In Canada, by contrast, wildlife is still generally thought of as abundant.

Many Canadians feel that it will be only a matter of time before we too are partitioning and privatizing the best fishing rivers, raising most of our wild ungulates on game farms, or prohibiting trade in formerly abundant species because they have become endangered. In this regard, maybe wildlife management in Canada is anywhere from 50-200 years behind Europe. Such a statement assumes, of course, that we will continue to make the same mistakes that they did.

Finally, as far as the USA is concerned, perhaps we are only 25-100 years behind. Putting aside some recent decisions by Secretary Watt (I wish we could), the USA has generally been miles ahead of us in protecting wildlife habitat--particularly through parks, wilderness areas, and wildlife refuges. To a certain extent, this is because the USA has a rich conservation history, drawing on people such as Audubon, Roosevelt, Leopold, and Muir. But we have our own conservation legends here in Canada--how about Doug Pimlott, Dewey Soper, Doug Clarke, and Ian MacTaggart Cowan?

The big difference has been the vision of certain US politicians who wanted to be "judged by history" in terms of their conservation achievements. With the possible exception of Jean Chrétien, no one has even come close to this visionary perspective in Canada, including, I am very disappointed to say, our present and long-time Prime Minister.

Stewart Udall, a former Secretary of the Interior, recently reflected on what happened in Alaska. This man did not ask his officials whether certain decisions could be made by certain dates. He informed them that decisions would be made. "Get out of the road if you can't lend a hand"--that has been the American approach. Udall's drive and push from the top had the remarkable effect of precipitating solutions to certain problems thought to be insurmountable. The problems were very similar to those facing wildlife managers on our side of the border today. But, in Canada, our politicians seem to make decisions almost as a last resort. We stew in our own juices: just one more study, just a little more data. We hum and we haw. We stall and we delay. We shuffle the politicians. We shuffle the bureaucrats. We lose time. We lose support. We lose options.

For some reason, Canadians seem to be afraid to take big steps. We would rather try to jump across a big crevice by taking two little steps. And you know where that gets you. I am learning that sometimes the policy of being too cautious can be the greatest risk of all. But, take a second look. Is all this caution and paralysis inherent in the politicians? Or are the politicians simply reflecting the advice and attitudes of their senior advisors--including wildlife managers?

As I say, I am not sure that the problems facing wildlife management today are all that unique. They could well be the problems faced by the country as a whole.

FUTURE CONSIDERATIONS

D.C. Surrendi
Assistant Deputy Minister,
Alberta Fish and Wildlife Division

In accepting this task, I wrestled with the subject for a long period of time, trying to isolate where to begin and what to say. On what critical single factor or factors does one focus in projecting future priorities in dealing with wildlife management?

After considerable confusion and false starts, here are my reflections on the subject of a "Future perspective for wildlife management"; in other words, "What should we do differently in the future from what we have done in the past to achieve a higher level of success as wildlife managers?".

A place for wildlife

A constructive and interesting approach to this question is to examine the corollary of where we have achieved successes. That is, where have we been consistently unsuccessful, and which of these areas has the greatest negative reward for the future of wildlife resources? With this approach, the area of our most dismal failures quickly came into focus--we have historically failed to secure a place for wildlife on the land. To make my point even clearer, we have never really been successful in securing, from the highest levels of government, either policy recognition or accountability for the allocation to use of land and water in the interests of wildlife resources as a priority.

How many research studies or surveys have you known that secured wetlands in the face of agricultural development in Prairie Canada? The factors affecting the decline in wetlands and waterfowl outlined in the Saskatoon Wetlands Seminar, 20-22 Feb. 1967, sponsored by the CWS, are as relevant today as they were then. Which leads me to conclude that whatever we have done since then has been ineffective in influencing the use of land and water. Similar examples can be identified throughout Canada and elsewhere.

With current and foreseeable economic and social demands, pressures on the land and water base in Canada are inevitable. If a place for wildlife is going to persist, it is going to have to be fitted in with whatever else is going on, or it will end up being "away-to-hell-and-gone", where you cannot produce anything else. It is neither realistic nor constructive to expect it to be otherwise in the years to come.

The key, of course, is land-use planning with a commitment and political accountability, and it must be done by knocking heads together rather than by misty-eyed resource managers dreaming of what they feel "should be" rather than "what is". The future success of wildlife managers towards securing a place for wildlife in Canada will depend on how well we can secure a policy commitment of the highest order in our respective jurisdictions towards the maintenance of viable wildlife populations in order to achieve stated public benefits.

Wildlife managers have historically focused so precisely on the resource that, from a strategic planning perspective in government, this resource focus may be considered a fault. Please do not misunderstand what I have said. I can appreciate the importance of sound scientific data relating to the ecology of a particular species. From my experience, however, I believe that we may be so narrowly focused in our perspective, by accident or perhaps design, that we have little, if any, appreciation for the client's orientation, of the benefits and/or services that we should be striving to achieve. In a nutshell, we must better understand the system of government that we function in, and learn how to work within this system to secure a place for wildlife in the future.

Major decisions of government focus on the disposition of land and water for the public good or benefit (economic or otherwise). To raise technical arguments with a narrow resource focus in such forums where decisions at the highest policy level are rendered, is legitimately confusing to the decision-makers involved. The inability of such forums to factor a technical point concerning wildlife management into a decision-making process that deals with other areas of social interest on a higher plain of principles usually, if not consistently, results in wildlife resource interests losing by default. I must emphasize that these are not intended to be malicious decisions against wildlife resource interests, they are honest decisions of a policy nature that are rendered because we have not placed wildlife resources into a policy context that is understandable to decision-makers, and in a way in which these resource interests can be weighed or integrated with other social values being considered in the decision-making process.

It is fundamental that if wildlife resources are to receive fair consideration when government decisions on the use of land and water are made, policy endorsed by the highest levels of government dealing with wildlife resource interests are essential.

Policy on resources

What basic characteristics, then, should policy related to wildlife resources reflect?

(1) It should reflect a position of the government as a whole, rather than that of a specific agency of government; e.g., full cabinet or, better yet, full caucus of government.

(2) It should be comprehensive, dealing with the broad range of issues associated with wildlife management.

(3) It should reflect the priorities of government towards the allocation to use of wildlife resources:

- be as precise as necessary, because this is a fundamental responsibility of government, and provide guidance to the civil service,

- also, I must emphasize that in this context "allocation to use" includes non-use options as well (e.g., non-consumptive).

(4) It should establish clear accountability of government towards the maintenance, management, and administration of wildlife resources:

- i.e., accountability from the minister responsible in the legislature (or parliament) to the agency responsible for the policy and legislation.

(5) It should commit the government to a wildlife resource plan that identifies a further policy commitment towards securing the habitat base necessary to achieve the approved level of resource supply to meet stated levels of public benefits:

(a) - public benefits to be achieved (consumptive and non-consumptive),

- resource supply requirements and geographic distribution necessary to achieve the level of public benefits identified,

- habitat base necessary to achieve the resource supply levels;

(b) - a comprehensive habitat plan established to address the land and/or water base requirements necessary, from an ecological perspective, to meet the approved level of the wildlife species' complex supply,

- the habitat plan should address the role of both private and public lands in achieving the stated resource supply levels, and should also recognize the role of other government agencies and the private sector.

In summary, the future success of wildlife management will require:

- sound scientific information;

- a willingness to be pragmatic and practical in the management application of existing scientific information;

- clear tough-minded regulation;

- a realistic recognition of when to abandon a lost cause;

- a positive and creative approach to working with others to seek ways of giving wildlife a boost wherever we can; and

- above all, developing our abilities in the area of strategic planning in order to secure policy commitments from the highest levels of government towards the identification and maintenance of a wildlife resource supply necessary to achieve stated public benefits.

Wildlife management (session 1)
Is wildlife management unique?

MANAGING WILDLIFE WITH A REDUCED BUDGET, OR WHAT DO WE DO NOW?

D. Robinson
Director,
British Columbia Fish and Wildlife Branch

Presented by H. Monaghan

Let me sketch a scenario that most wildlife managers in North America are currently facing:

(1) economy is sluggish and income has declined,

(2) government funding is down,

(3) past 3-4 years of inflation are hurting,

(4) public wants the same or improved services,

(5) intensive management is costly,

(6) other co-operating management agencies are similarly affected.

I believe that these factors are speeding up changes that have been underway for some time, and that these trends will establish the future basis for wildlife management. Traditionally, management of wildlife has been a government responsibility. Factors found within the private sector for other resources, such as development of markets, merchandising, selling direct to the consumer (retailing), and direct contact with the resource-user, are part of the wildlife agencies' responsibilities. This was a logical outgrowth of the pioneer attitude towards wildlife; it was owned and used by everyone and, therefore, should not be allotted to any one group for their gain.

Data for planning

In British Columbia and other provinces, the role of government as the entrepreneur of wildlife was taken seriously. We sampled our clients on demographic parameters, economic patterns, future needs, and consumptive and non-consumptive needs and wants and, at the same time, carried out traditional resource practices, such as making inventories, setting seasons, and measuring the annual harvests. This information was used to select program priorities, raise licence fees, and plan for the near future.

These data indicate that our clients continue to increase in number and that their demands are becoming more complex. At the same time, space for wildlife is decreasing, due to human pressure and the need to extract other resources. Caught in this squeeze, most wildlife agencies have turned increasingly to habitat management to produce more wildlife. In British Columbia, the Habitat Conservation Fund, which is a $3 surcharge on all hunting, angling, trapping,

and guide licences for the purpose of habitat improvement, is a recent expression. Our experience shows that such work is costly. By and large, the cost for a fish and wildlife agency to produce more wildlife is comparable to the cost to produce more trees, grass, or cows.

Times are tough, but tough times provide an opportunity to change your direction and to utilize new public attitudes. Now is the time to discuss, explore, and plan for the post-recession period. Our world will not be the same. People, our clients, will have new attitudes, and these will provide the gateway to the future. We must harness our opportunities to get more people involved in production and utilization, apply new ways to fund management needs, and free ourselves from the treadmill of habit. What can be done?

Administration

Review your policy and procedure to ensure that their application does not conflict with your priority needs; e.g., rigid adherence to the 100% level of measurement of certain species for management purposes may be more costly than the extra data warrant. Regulations could be reviewed to reduce their intrusion upon the hunters and outdoor recreationists. To make regulations effective costs money. Therefore, look at benefits from new regulations before passing them, and re-examine existing regulations to make sure that the benefits are there.

Examine your funding base; there may be opportunity to increase revenue. No-one wants to be a heavy-handed taxer, but programs cost money and somebody must pay. A review of your licence and permit fees is a must.

Also, the cost of issuing licences, which, in British Columbia, is a 10% refund to the sub-issuer, may be recoverable. A flat fee for issuing may be cheaper; or perhaps do as California is trying to do, and allow the issuer to charge what he wants as long as the agency receives the face price. Issuers can then sell licences in keeping with their service, and thus an angler pays more for obtaining a fishing licence at midnight on 1 July than during routine hours.

Or licences could even be a loss-leader to entice buyers to a retail store. Just because it is a licence, there is no good reason why it should not be merchandized in a variety of ways, provided that the resource agency makes or keeps more dollars. Another approach is to have ear-marked funds established by legislation. Many agencies have this, such as Albert's "Bucks for wildlife" and BC's Habitat Conservation Fund.

Washington state requires an access permit for persons without a hunting or fishing licence who use access facilities that have been established through anglers' and hunters' fees. A note of caution here--some states have a number of ear-marked funds, which are useful, but there is a limit to the complexity the public will put up with. However, there appears to be room for innovative licences and permits, if the public perceives them as fair and directly beneficial to the resource.

Resource stewardship

Let us turn to the resource and see if there are ways to improve our stewardship.

How confident are you that your objectives and priorities are correct? How long has it been since you asked your clients what they wanted?

I suggest that, under fiscal restraint, it is even more important that you conduct demand surveys to check on your priorities. Limited funds must be spent on the right projects to give credibility to your agency. Are you spending too much on trophy species such as sheep, or introductions of species for which available habitat is limited? How much should you spend on rare and endangered species? What kind of management should you practice: extensive management based on stock manipulation, or intensive management based on costly habitat improvement? How much research or enforcement is needed to reach your objectives?

Answers to these and similar questions should be available so that you can make the best selection of projects. Some of the answers to assist in setting priorities will come from evaluation of existing projects, but all too often we implement new projects or carry on existing work patterns without adequate evaluation. The evaluation should include the usual internal measurements of cost effectiveness, but of even more importance, external measurements of how your programs were supported by your customers. The internal parameters are easier to measure and can be done in a short time-frame, whereas resource investments in habitat improvement or population manipulation often take 3-5 years, or longer, before results can be measured.

Co-operative management

Finally, a look at ways and means of co-operative management. Once you have decided on your priorities, ways and means to fund them should be examined. In some cases, the methods available to achieve priorities may influence their rank. For example, a waterfowl project may not have high priority, but if costs could be shared with Ducks Unlimited, it could be feasible. You may even find cost-sharing with the CWS attractive. Earlier in this paper, I stressed that wildlife management was in the throes of a rapid evolution in terms of the public's role: that the traditional role of government as the sole entrepreneur, wholesaler, and retailer was changing, and that the public sector was becoming more involved--not just as a consumer but as a producer as well.

The challenge is how to have wildlife enter the economic market-place more effectively, but retain the opportunity for reasonable access by the public. This could be done by using the existing structure and ensuring that all clients pay their way--consumptive and non-consumptive use through licence fees and other forms of taxation. Wildlife agencies would still be the prime entrepreneur, but expenditures would equal (or at least approximate) income. Some allowance could be made for benefits that the public at large obtained. For example, maintaining a marsh or estuary benefits our clients, but it also benefits all citizens, as such areas can and do assist in reducing contamination from wastes.

Beyond such considerations, the user-pay process would be in effect, and new benefits would need to be funded by new money. For example: we are sharing the cost of grizzly-bear research with the Ministry of Forests and private forest companies. We need to know the space, food, and cover requirements of a grizzly population, so that logging can proceed with as little impact as possible. Again, we need to know the long-term options for wildlife in managed forests and, to find out, we are sharing the costs with industry and the Ministry of Forests.

We also have a small fund, called the Public Conservation Assistance Fund, with which we support various public groups to benefit wildlife, wherein they supply at least $1 of labour, material, or equipment for each $1 of the grant. It works well, and when local people build something, you rarely have to worry about vandalism.

There is another significant step that we have not taken as yet, but we are looking at it. That is working with a resource extractor, such as a forest company on Crown land, and negotiating with them to deliver so many deer-days of recreation or downstream steelhead smolts, with the proviso that we use these results as indicators of their good management. If this comes about, and I am sure it will, only one further step is needed before wildlife, in some circumstances, will be marketed as another managed resource for which the management costs (and some profit) will be required from the user.

In conclusion, I believe that tight budgets will be beneficial in the long run, as they force us to make choices and find alternatives. Selection, whether biological, political, or fiscal, works best when mortality is high--this appears to be a price for change and evolution. It is a tough period and I can do no better than quote Dickens: "It was the worst of times and the best of times".

Wildlife management (session 1)
Is wildlife management unique?

SUMMARY OF DISCUSSION

R. MacLennan (Saskatchewan Wildlife Branch) questioned the comparison made by Monte Hummel, of Canadian success and failures in wildlife management with European. He challenged both Europeans and Canadians to compare the results of the conservation programs of both continents, and suggested that Canadian wildlife management had been an absolutely resounding success, particularly in the West. He also agreed with Dennis Surrendi on the need for government or cabinet approval of policy, but said governments and policies could change. What was needed was public approval, and he warned that if the public was not behind them, they would not succeed.

M. Hummel (World Wildlife Fund Canada) responded that he did not mean to suggest that Europeans were doing a better job, but that they had flubbed it fantastically. However, he would accept Mr. MacLennan's challenge on Canadian conservation achievements any day. He did not think the verdict was in on Canadian conservation efforts at all. His point was that Canada was in a very embryonic stage in wildlife management.

R.H. Scammell (barrister and solicitor, Alberta) said that North American managers did not have to take a back seat to anyone in the world in terms of what they had done. It was his opinion that one of the greatest challenges that faced them today was that of too much success, i.e., deer herds in North America were at all-time high levels, and so was the number of customers for those deer. He added that perhaps one thing they should emulate was the way that the Europeans trained their outdoors-users--not just hunters, but all outdoors-users.

D.C. Surrendi (Alberta Fish and Wildlife Division) replied to Mr. MacLennan's comments, saying that he had never seen anything go through cabinet, i.e., policy changes, that was not very well thought out in terms of public sensitivity or support.

He referred to wildlife management in North America, and said that they had some of the more progressive and certainly more outstanding technology available to them in that respect. They occasionally thought that wildlife managers, people who administered law, regulations, and policy associated with wildlife, had influence over the land and how it was used; but, in his experience, forestry and agriculture had been the major wildlife managers, leaving the others to count what was left and issue licences for the allocation of their use. He said that the opportunity was there now for them to be involved in integrated land management, and that future implications of these activities would be even more positive.

Gerry Kemp (Prism) asked Bob Scammell where, in his review of the historical legal perspective of wildlife management, did he see the emergence of the "right to hunt". Mr. Scammell had referred back to the Bible, the game law in Deuteronomy 22, and had also mentioned the native belief that various creatures were gifts of their manitous. He said: "If you look at any tribal history of the world, or the history of most peoples of the world, you will see there is a concept that to be human is to sustain yourself from the gifts of the earth in one way or another". They could translate that into the "right to hunt", but that was not in the Charter of Rights.

Mr. Kemp asked if it would be a correct interpretation of history to suggest that the "right to hunt" died with the need for subsistence utilization. He suggested that what they saw in the Middle Ages and in current history was a privilege dispersed now by government, in history by the king, and prior to that by tribal council. The phraseology "right to hunt" really had no meaning today.

Mr. Scammell disagreed. He said that it would deny what all religions recognized in what it meant to be human. Whether it was a right or not, whether it was a necessity or not, there were people in this world who had just got to hunt, and he was one of them.

J. Robinson (Alberta Trappers' Central Association) in response to Monte Hummel's report, said that there was a fairly widely held misconception that trappers took the fur and the rest of the animal was wasted. He pointed out that this was not so; the carcasses were left as food for the wolf, bear, etc., as part of the food chain.

M. Hummel said that he understood this point of view, but the point we was trying to make was how other cultures, where there was tremendous emphasis on complete utilization by man, saw Canadians. Other cultures, referring particularly to the Philippines, saw it as a waste in the sense that the best parts had not been used.

P. Boxall (Alberta Fish and Wildlife Division) said that the whole non-consumptive use of the wildlife resource raised a whole spectrum of interesting questions:

(1) reduced wildlife funds available to the wildlife manager,

(2) new problems with respect to trespassing on private lands, and

(3) public policy.

He felt that Europe had gone a lot farther than North America in actually surveying, inventorying, managing, and allowing public access to their non-consumptive wildlife resources.

M. Hummel said that for most people (lay people) wildlife management equalled killing wildlife. He said: "We all know that there is another side, and that is habitat protection, population enhancement, and reintroduction of endangered species." He suggested that they would engender greater credibility by focusing on that side. When the majority of people in the country were interested in non-consumptive uses of wildlife, and they found out that 80-90% of the time wildlife management meant killing wildlife, there was a public credibility problem.

H. Monaghan (NWT Department of Renewable Resources) agreed with Mr. Hummel. He pointed out that in the North a very large segment of the population relied on wildlife for food and economic gain--it was their renewable, resource-based economy. He added that at the opposite end of the spectrum they had some really unusual spectacles, i.e., major caribou movements, which people came from around the world to see. These two very divergent appreciations of wildlife were going to be focused on in the North for the next few decades, and he saw this as presenting some very interesting problems, but also some very interesting opportunities.

Mr. Scammell said that there was no such thing as a "non-consumptive" user of wildlife. He mentioned damage done to grass, terrain, property, and the good feelings of landowners by the so-called "non-consumptive users" as opposed to hunters. Non-consumptive users were by-and-large getting a free ride in terms of users' fees, etc., basically riding on the backs of hunters and fishermen. Some private wildlife organizations in Canada were addressing the question of whether or not it was going to be necessary to tax the non-consumptive user with regard to the use of public land.

G. Sheehy (Canadian Nature Federation) asked Mr. Scammell for a better term for "non-consumptive use", and an explanation of what he meant by "non-consumptive users" riding on the backs of hunters and fishermen. He mentioned the tremendous amount of money spent by non-consumptive users on binoculars, cameras, film, canoe trips, pack trips, etc.

Mr. Scammell asked Mr. Sheehy what basic charge the so-called "non-consumptive users" paid to the maintenance of the resource. He mentioned that in the United States there was a tax on boats, binoculars, cameras, etc., which went ultimately to the maintenance of the wildlife resource, but that there was nothing comparable in Canada. Alberta's "Bucks for Wildlife" fund was paid for by fishermen and hunters, because few general revenue funds in Alberta went towards wildlife habitat acquisition, retention, or improvement; yet bird-watchers, canoers, and picnickers all benefited from it. He could not think of a better term than "non-consumptive users", except to suggest calling them what they were: canoists, photographers, bird-watchers, or nature-lovers.

Mr. Surrendi referred to both Mr. Boxall's and Mr. Sheehy's questions. He said he was convinced that the rift that had developed, mainly in semantics, was doing them no good-they all enjoyed wildlife; some of them liked to eat it (when they could), and the ones who liked to hunt also liked to know that wildlife was there to look at. He warned that they had enough enemies without making additional rifts among themselves. The biggest challenge they had was to get their act together as people who enjoyed wildlife. He suggested that if they could ever capture the political interest in wildlife, they would really have achieved something. He warned that, by arguing about consumptive and non-consumptive use, they were making it easy for the people who did not like wildlife, or did not want a strong interest in wildlife to be presented in government. Members of fish and game associations who loved to hunt also enjoyed wildlife in a non-consumptive way. They should not label one another, because it did them no good.

G.R. Kerr ended the discussion by thanking the speakers for their excellent papers and the audience for their participation. He said that, in the planning process for the conference, they were thinking more about tomorrow than today. Norm Simmons had proposed some methods for team-work that they should look at. Dennis Surrendi had talked about becoming more co-ordinated. Bob Scammell had spoken about keeping history in mind and not going off the deep end. Monte Hummel had mentioned general perceptions of wildlife management and "our need to be aware of them". He asked everyone to think, especially, about Dr. Simmons' presentation and to formulate, in their own minds, where they could go in the future to do the job better.

Wildlife management (session 2)

INDUSTRY/WILDLIFE - CAN THEY BOTH BENEFIT?

T. Beck
Chairman,
Canadian Environmental Advisory Council

For those of us who attended the Ducks Unlimited (DU) breakfast, we got off to a positive start. We saw what is being done for wildlife through the use of industrial techniques, and I would like to thank DU for the invitation. I would also like to thank the organizers of the Federal-Provincial Wildlife Conference for inviting me.

Wearing a different hat from the one that I am wearing here today, I developed a concern over what industry can do to wildlife. That led to my own direct involvement in what industry could do for wildlife. In parts of this continent, stretching from the Nevada desert to the High Arctic, from British Columbia and the Yukon in the West to Davis Strait and Nova Scotia in the East, I found that, fortunately, a lot of people throughout the continent shared this common interest: that is, "What we can do for wildlife". I am sure that the speakers who are here for this second session were chosen for their knowledge and involvement in the subject. I can tell you that my own experience in that particular field has been a very pleasant one, an easy one at times, because of the expertise of people like yourselves, who have helped me in that task over the years.

The topic is "Industry/wildlife - Can they both benefit?". The more I think about it, the more I want to think about it. I plan to pursue that beyond this conference; it is something that I have developed quite a fascination for. There is such a wide range of industries and a wide range of species involved in this interaction. Some of those industries have been mentioned throughout the earlier part of the proceedings--transportation, for example. The extirpation of the buffalo has been mentioned more than once and, of course, the transportation industry, namely the CPR, had a large part in the demise of that particular species.

I would like now to introduce our speakers. The first is Dave Neave, who is Director of Habitat Development and Protection for the Alberta Fish and Wildlife Division here in Edmonton. He is going to give his views on governmental regulatory responsibility. His reflections on the problems and costs may suggest changes in our approach.

Our next speaker is Jack Toovey, Chief Forester of BC Forest Products in Vancouver. I think his paper shows that commitment and attitude can be as important as legislation, among quite a few other points.

Our third and final speaker in this session, Len Mottus, is President of Associated Resource Consultants from North Vancouver, who takes an interesting and speculative look at a much different approach under the heading of future responsibilities.

Wildlife management (session 2)
Industry/wildlife - Can they both benefit?

A GOVERNMENT REGULATORY RESPONSIBILITY

D.J. Neave
Alberta Fish and Wildlife Division

The topic, "Government regulatory responsibility" related to wildlife and industry, is more challenging and interesting than first perceived. Some of the most fascinating wildlife literature, from Aldo Leopold to today, relates to the cause and effect of industrial activities. However, the answer to "Can industry and wildlife both benefit?" remains elusive.

The title could be changed to "The way it is versus the way we would like it to be", or even better, "There must be a more effective way to do business within the bureaucracy and within industry to protect wildlife". My background in forestry, wildlife, and habitat management, along with recent emphasis on facilitating industrial development, may be sufficient for me to comment on these more philosophical titles and still answer the three assigned tasks:

(1) government's current role, reflected in policy, regulations, and philosophy regarding wildlife and industry;

(2) changes required in industry-related regulations to assist in the "ideal" wildlife management system;

(3) with changes in attitudes, the feasibility of realizing more liberalized regulations while still maintaining wildlife.

The background to these questions has in part been addressed by earlier speakers discussing proprietal rights, the differences in wildlife management systems, and the comparison of other resource-sector management. A similar discussion of this subject entitled, "Fish and wildlife resources and economic development", occurred here in Edmonton last April, sponsored by the Alberta Society of Professional Biologists. Two observations about that meeting appear noteworthy:

(1) While the topics of wildlife administration, policies, and economics were all relative to Alberta, the discussion of industry, except for forestry, was all relative to the United States, despite excellent and documented examples in western Canada. Perhaps it is hard to recognize our own accomplishments.

(2) Brian Ransom's summary of constraints in wildlife management reviewed the 1961 Resources for Tomorrow Conference, which gives a perspective of our success in the past 22 years. His summary, however, "Progress in a losing cause", hit a nerve. There is a common thread of scepticism or cynicism among wildlifers on the wildlife/industry relationship.

In addressing the first question, "What are the present regulations and philosophies as related to the interaction between industry and government in wildlife management?", I have separated my comments on government's role, industry's response, and the interaction into three parts.

Government's role

First then, the government's role and responsibility is obviously linked to its proprietary responsibility. Wildlife is a common property resource with all its virtues and limitations, including a lack of sophistication in its management and perceived lack of economic clout. Current wildlife/industry-related legislation, which is the reflection of government philosophy and policy, tends to be weak. In a quick review of Canadian wildlife habitat legislation, I could find nothing similar to the Fisheries Act legislation on habitat protection except for the Migratory Birds Convention Act, 35, (1) and (2), dealing with the depositing of oil in waters frequented by migratory birds. Otherwise, provincial legislation deals with protecting wildlife and allocating the use of the resource. Any habitat legislation has been limited to specific "special wildlife areas" or acquiring funds for habitat development programs. There are virtually no direct legislative limitations placed on industry by wildlife agencies, who are therefore forced to use other agencies' legislation, such as the Public Lands Act, the Water Resources Act, or the Land Conservation and Reclamation Act in Alberta. Enforcement of environmental legislation, currently a hot issue in Alberta, is also irregular.

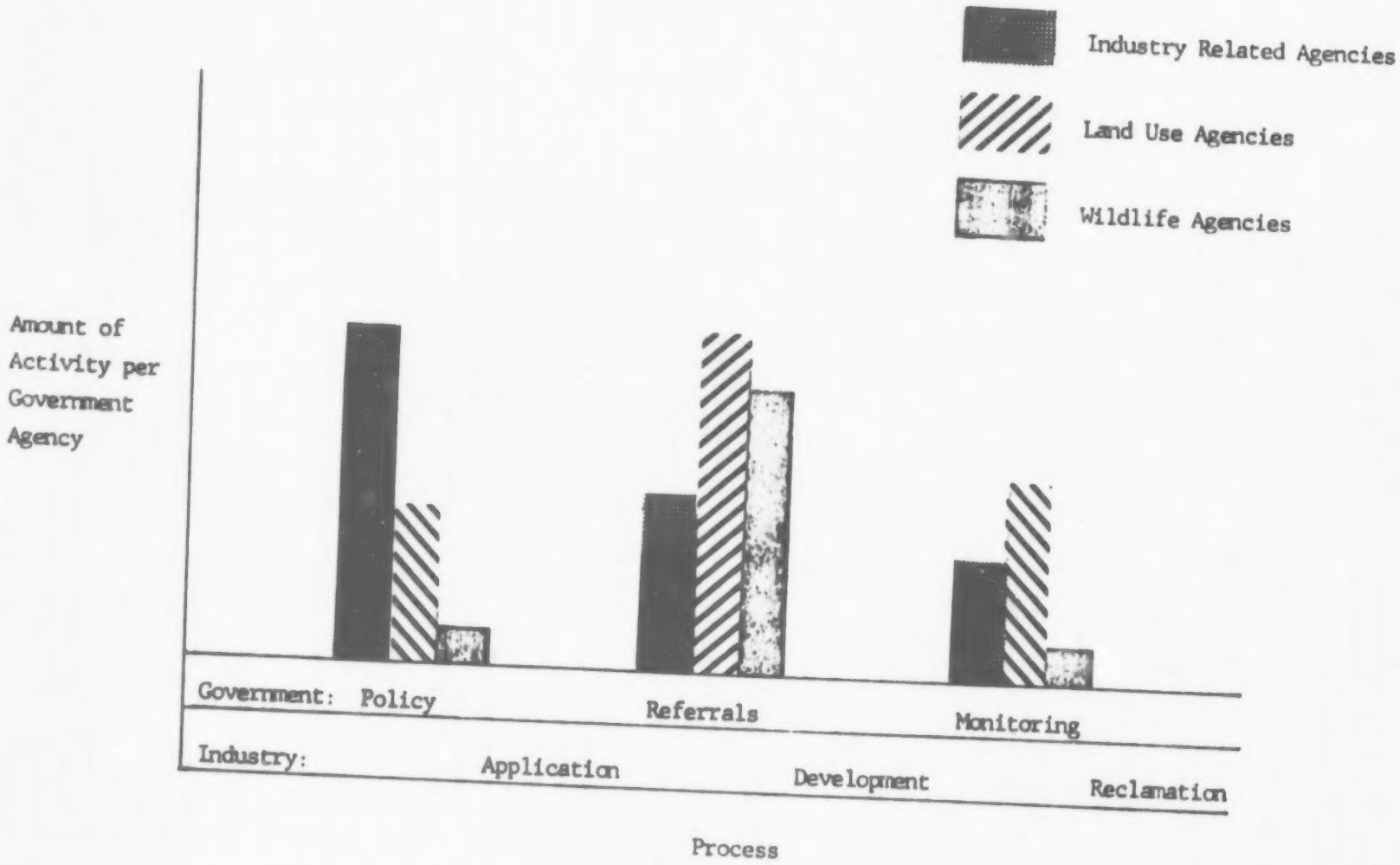
For an earlier conference, I reviewed enforcement activities in Canada and compared the responsibilities of enforcement staff to their actual activities. Habitat and environmental protection, while identified as the prime responsibility of enforcement staff, was their lowest actual activity at 6% of their total allotted time.

A second area in reviewing government's responsibility is the processes of dealing with industry. During the 1970s, as environmental conflicts became more of an issue, the resolution of conflicts via negotiations and the referral process became the order of the day. In Alberta, with the Fish and Wildlife Division involved in 33 referral systems alone, the major problem is not co-operation between departments and disciplines, or even monitoring and enforcement, but the incremental impact of activities on the resource, with each application handled separately.

It is not uncommon in west-central Alberta to have oil and gas operations, logging, grazing, and coal mining all in the same area at the same time. While biologists and industry representatives can develop the best mitigative strategy, and implement and enforce their strategy within a co-operative spirit, the result may be counter-productive if another industry effectively eliminates the balance. This incremental impact affects wildlife, its use, and the habitat base. Ironically, the major impact is often not the industrial activity, but the increase in use of wildlife that follows with industry's new roads and infrastructure. Over-hunting and harassment of wildlife often leave vacant habitat that has purposely been protected by industry.

The referral process is only one part of the process of government dealing with industry, and I believe it has been over-emphasized. There is actually a continuum from the creation of governmental policy to allow industrial development to the monitoring of the rehabilitative or clean-up activities, as shown in Figure 1. While our emphasis has been on the application review stage, the greatest benefits are found in influencing policy and participating in field activities. Other agencies, the land manager and the industrial proponents, do not over-emphasize the referral stage like wildlife agencies. There are exceptions, such as our involvement in the "East Slope" policy in Alberta, but as Pamplin from Alaska

Figure 1: EMPHASIS OF GOVERNMENTAL ACTIVITIES RELATIVE TO INDUSTRIAL OPERATIONS



indicated in his review of mitigation of oil and gas impacts, field supervision and surveillance are the problem, and where the dividends of all the previous steps are achieved.

Another significant government responsibility that has not been well developed until very recently is a clear definition of fish and wildlife goals and objectives that government can endorse and other agencies can understand. Too often in the past, biologists were perceived as pig-headed environmentalists, creating an impression to others that their "cause" was not logical, but based on principle. The result was confrontation which resulted in industry and larger government departments usually achieving their objectives. However, the current development of clearly stated and approved populations, and habitat objectives with strategies, should allow staff to work with other agencies in a more pro-active manner.

A final comment on government's responsibility and actions is related to the unfortunate growth of many specialized bureaucracies relating to each industry. With the continuous splitting and specialization (including our own agencies, with fisheries, wildlife, habitat protection, enforcement, extension, and administration), resource and land agency staffs do not have the broad background or training to relate to each other's problems. In addition to this need to be able to relate to other agency's interests, the wildlife manager has to represent the resource, as there is no visible or forceful industry that represents the production to marketing area similar to the logging or mining industry.

Industry's response

Enough about the government; how about the industry? My first approach was to define industry relative to wildlife and understand the reasons for different approaches. From a habitat protection perspective, there are three forms of industry:

(1) The extensive industries, such as agriculture, forestry, and oil and gas development, have the most significant impact on wildlife and habitat. These impacts can be positive or negative, and mitigative measures are important.

(2) The intensive or site-specific industries, such as hydro developments and coal mines. They are a single use of the landscape, and emphasis should be placed on initial planning and then on reclamation.

(3) The third industry is that related to wildlife-use, the commercial outfitter or trapper. It is the sportsman and tourism industry. As I earlier indicated, aspects of this industry have often unwittingly affected the viability of wildlife, which other industries have attempted to retain.

As a footnote, some of the larger industries of the first two categories are within governments, such as transportation or park development.

A second point regarding industry is the similarity of its structure to government's, with the executive, middle-management, and field levels. Many of the problems posed by industry to wildlife managers are site-specific, and are carried out by contractors or sub-contractors who have no knowledge of the rationale for the operating conditions or, in some cases, even the conditions. Negotiations with middle-management may be very productive, but useless if the message is not clearly understood at the operational level.

A third and last observation concerns the variability between industries and within an industry relative to responsibility in land-use issues. I am hesitant to elaborate, except to congratulate certain industries for taking a leadership role. The CPA-IPAC position in being the first industry to adopt a trappers' compensation program, as well as resolving "East Slope" wildlife issues through research and evaluation, is exemplary. A similar compliment can be paid to agriculture, who supported the development and implementation of the Red Deer County tax approach to retain habitat.

Interaction

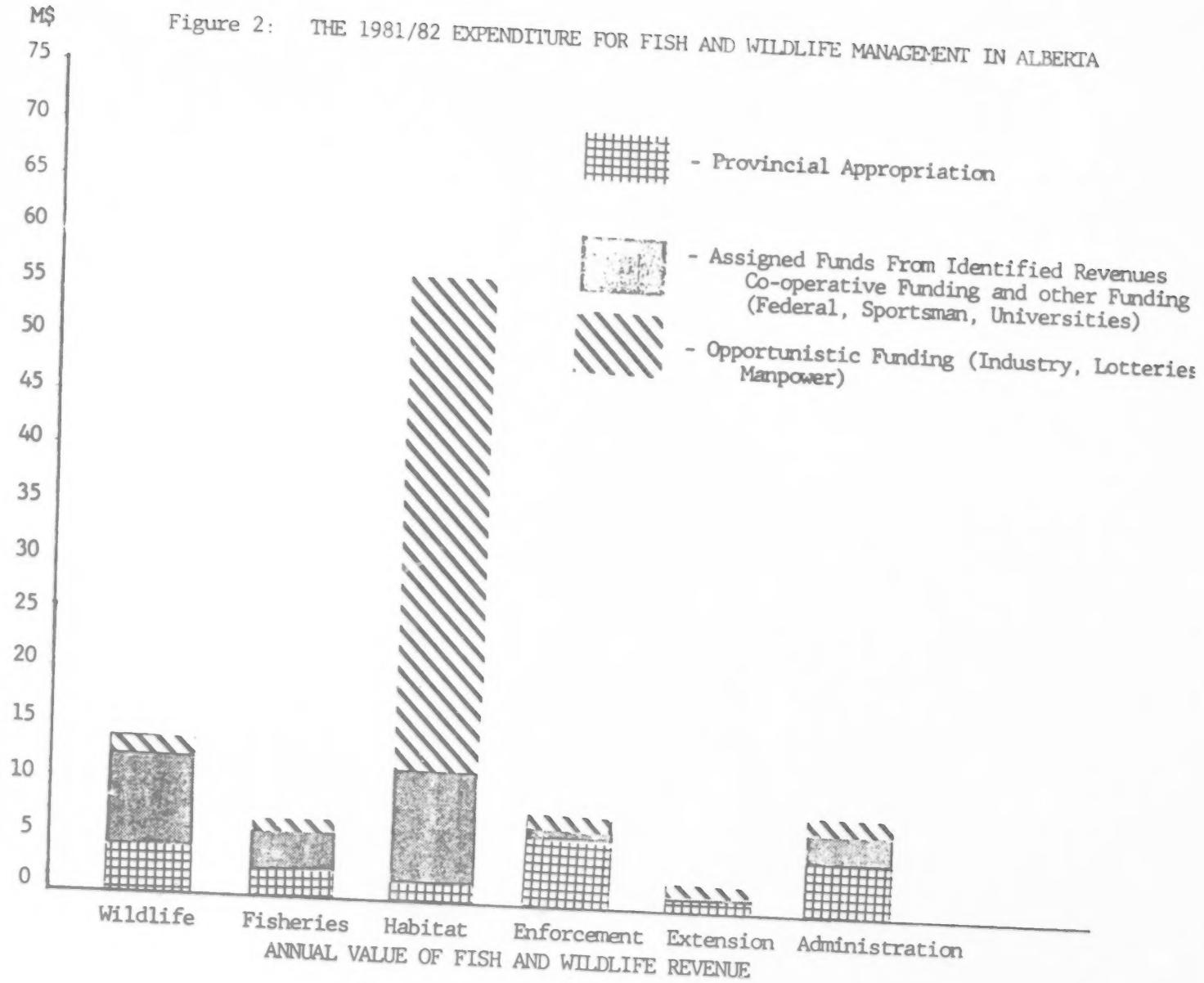
The third element of this review is examining the interaction between government and industry. My immediate reaction was to refer back to the article entitled, "Implication of 'muddling through' for wildlife management" by Bailey, who showed why, in multiple-use programs, foresters, and mine and range managers are less constrained by limited knowledge and budgets, and favour rapid development. Wildlife managers, consequently, are often fully occupied in responding to these other resource programs. In Alberta, swamped with these demands, we have not opposed development, but have favoured slow and cautious resource development with planning mitigation. This conservative approach has recently led to some very positive interactions with industry.

A second point is the cost of conducting business by industry and by government to protect wildlife and habitat. Figure 2 shows three funding components: general appropriation, other funding sources, and costs of mitigation, separated into six organizational components within the Alberta Fish and Wildlife Division. The key point relative to industry is the high opportunisitic funds primarily related to industrial development with legal requirements for impact assessments and mitigation. Compensation for the loss of wildlife habitat is not a component in Alberta. There is no firm estimate of the extent of mitigative costs, although we do know that some of our conditions for the approval of industrial development can cost over $1 million each, such as requesting directional drilling or power-line alignment modifications.

The minimal cost of mitigation in Alberta, as shown in Figure 2, is $45 million. The cost of lost revenue to industry and loss of Crown royalties is difficult to estimate and is not shown, but staff estimate a much larger amount. When one adds the co-operative funding of other departments, such as transportation, and the significant efforts of private organizations, such as Ducks Unlimited, it is obvious that industry provides over 95% of the total cost of habitat management in Alberta, excluding estimates of potential lost revenue and royalties. Other comparisons are significant, including the $2 million annual government expenditure and $50 million annual cost to industry relative to the $200 million annual fish and wildlife value, based on consumer surplus.

Based on my observations of government's and industry's role and philosophy, and the current interaction, I would like to suggest some changes to assist in the ideal wildlife management system--my second task. Again, I would like to break the discussion into three elements, the government leadership role, the industry's opportunities, and the interaction.

Figure 2: THE 1981/82 EXPENDITURE FOR FISH AND WILDLIFE MANAGEMENT IN ALBERTA



Government leadership

There are two forms of government initiative that should occur. The first is the further refinement of the current process, defining policies and goals in legislation. Obviously, some form of habitat legislation is required to set the rules for government to work productively with industry. Government policies on wildlife, with commitments to achieve finite recreational goals based on supply and demand criteria, will allow the Fish and Wildlife Division's staff to work productively within the whole spectrum of land use, from policy integration to referrals, and to field monitoring. Other issues such as the inability of staff to relate to other bureaucracies, due to limited training, should be overcome by a more aggressive multi-discipline training and staff-exchange program, rather than by creating a separate land planning/approving agency.

The major form of government initiative, however, is in the re-assessment of approach and the continued development of integration, while recognizing the growth of recreational use of Crown lands. In the re-assessment of approach and procedures, it appears obvious that assessing each application independently of other activities is counter-productive to both industry and wildlife objectives. There is no use in examining each seismic line application as a separate issue if there are 30 crossing a critical wildlife zone during one winter. There is no value in one company suffering heavy mitigative costs if another company affects the initiative, or if sportsmen then eliminate any wildlife. A more logical procedure might be to declare areas based on the level of industrial development, and establish different strategies to deal with applications. A virgin area associated with a critical wildlife zone would have different mitigation for exploration than a multiple-use zone under intensive oil and gas field development or a coal mine. The latters' emphasis would obviously be on reclamation and rehabilitation. In other words, we need to identify areas for maximizing wildlife where conflict is limited, except where peculiar demands such as rare and endangered species exist.

With regard to fostering integration, comprehensive inter-agency solutions are difficult in a fixed and vertical organizational structure with limited statutory capability for innovation. The growth of the environmental movement, rather than strengthening our role, has often created new "environmental" agencies and legislative requirements that compete for scarce fiscal resources. The result is that the umbrella objective of comprehensive conservation policies, using a multi-agency ecological approach, is still only a desire of the wildlife agencies, as expressed in the "Guidelines for wildlife policy in Canada". The "environmental" days of the 1970s have left a legacy, including the birth of integrated land-use planning, but it will be years before the clear benefits of these misty concepts are realized. In the interim, clarification of roles and a more simplistic planning system, with less duplication of responsibilities and regulations, would assist industry and the wildlife resource.

With regard to the growth of recreational use of Crown lands, it is imperative that new strategies be developed to handle the public's demand for outdoor recreation. There are not a lot of proven management strategies and tools for the wildlife manager, except limiting public opportunity as demand increases. Industry, in most cases, is perceived as the culprit in the decline of wildlife and loss of recreational opportunity, but it really only creates the situation for other adverse impacts.

Industry's opportunities

Turning to industry's potential efforts, there have been many arguments presented for removing restrictions on the ownership of wildlife, so that industry could benefit by protecting or developing habitat. I am not sure that Alberta is ready for the various forms of this approach, perhaps due to the uncertainty of where it might lead. While I do not necessarily discount this concept, there are other intermediate steps to allow industry to profit, or at least recoup some of the costs associated with wildlife. There are examples of industry taking some initiatives. This year, CPA-ERAC are looking at methods of enhancing habitat as an option, in order to reduce the current, heavy, mitigation costs. The forestry industry, in reviewing wildlife mitigation last winter, examined where costs to mitigate impacts were large and small. The examples of the effects of leave-areas in the annual allowable cut, the impact of longer rotation cycles, and the impact of fewer roads with higher skidding costs, all indicate some flexibility. Industry as a group is taking some initiatives, examining the problems and hopefully making some counter-proposals to cut general mitigation costs, but to retain habitat.

Industry and government

The third area of where change is possible is in the development of a stronger interface between industry and regulatory agencies. There are three large building blocks that do not require major changes in regulations, but significant changes in attitudes and process.

The first is integrating our objectives with other agencies and industry. One of the most fascinating and rewarding career experiences has been capitalizing on the infamous belief that good forest management is good wildlife management. After a "Western wildlife managers' workshop on foresty and wildlife", with J. Ward Thomas as the main speaker, we--industry and the department--have made a strong commitment, with J.W. Thomas' assistance, to re-write his book for the St. Regis Forest Management Area (FMA) around Hinton. This enthusiasm for combining the objectives of timber and wildlife, understanding the relationships, and predicting impacts on various harvesting regimes is probably more visible in industry than in forestry staff, who a year later are still talking of snag management for woodpeckers.

A second major building block, which wildlife agencies have been slow to pursue, is the use of economics in the decision-making process. The arguments of industry's job creation being paramount should not wash in Alberta, with an estimated $4 billion capital value for fisheries and wildlife, based on a recreational and consumer surplus of $200 million annually. As Ian MacTaggart-Cowan outlined at the recent Alberta Society of Professional Biologists' Symposium, the capitalized value of the fur resource can be higher than that of the timber resource within a forest.

And the third approach is, of course, the adoption of ecological principles, the conservation ethic. I will not review the benefits to wildlife, other resources, and society in the long term. While the speed of progress to this ill-perceived goal is slow--still at the oratory stage, with education seen as the answer--I disagree with this single approach, since mechanisms are required to reward proper land use relative to its total societal benefits. There are signs of this, such as the recent petroleum and natural-gas exploration incentives tied to non-

conventional seismic lines. However, wildlife managers need to be a lot more imaginative in this area.

Other possible changes

The last question I would like to address is the probability of maintaining wildlife resources with changes in attitudes and regulations. I have not discussed all the possible changes and benefits, such as:

- the variety of mechanisms to enhance habitat,
- the value of greater production from lands set aside for wildlife,
- the value of greater control over the harvest of wildlife,
- the value of improved programs to compensate for damage inflicted upon landowners by wildlife.

But I have emphasized the key one, the development of an administrative climate that fosters and encourages co-operative initiatives between government and the private sector.

As an optimist, the only way that I can see of protecting habitat within an industrial society is to work with industry and capitalize on their programs. There are a lot of examples currently in Alberta, such as using seismic lines for habitat enhancement. The 18 km^2 in the Pembina field creates a lot of edge for wildlife, but also has allowed considerable recreational access that has created sterile wildlife areas. The creation of a designated trail system, with the support and development of industry and the public, should allow this actual habitat enhancement to be realized. Other examples, such as the potential Slave River hydro development, allowing rehabilitation of the Peace-Athabasca Delta, or the co-operative work with agriculture in land-clearing, irrigation works, and tax incentives, or the new FMA that identifies funds for habitat enhancement, all indicate the opportunities.

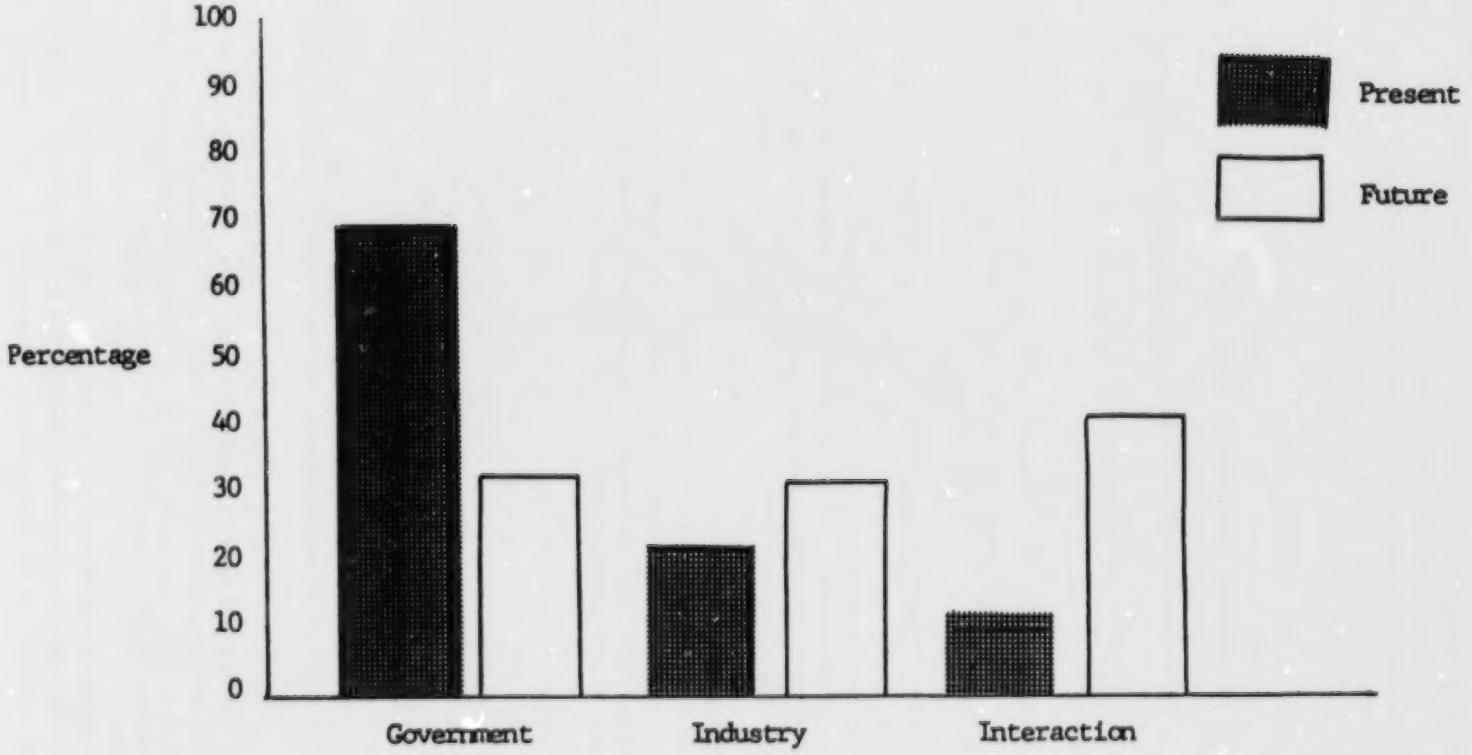
These examples are not the norm, but industry, when there is a perceived advantage, will exploit this co-operative approach. I am not advocating that the government's responsibilities change, but I do suggest that additional wildlife could be produced if industry had a larger, more meaningful role. Wildlife agency staff involvement could shift from the emphasis on processing applications to more field supervision and positive participation.

To conclude, I support the concept that less regulation and greater emphasis be placed on co-operative endeavours, where industry and wildlife can both benefit.

In reviewing my talk, I was struck by the emphasis in the current situation on wildlife agencies' efforts, compared with the emphasis on the interaction segment under potential changes, as illustrated in Figure 3. In reviewing habitat protection activities, industry and government should participate more equally, with the interaction segment being the strongest.

I also perceive that we are at a cross-roads in habitat management. There are two schools of thought, greater regulation or a more co-operative approach. Currently, we appear to be a little to the right of the centre, but probably

Figure 3: SUMMARY OF PRESENT AND FUTURE EMPHASIS OF INDUSTRY, GOVERNMENT AND THE INTERFACE RELATIVE TO WILDLIFE MANAGEMENT



swinging to the co-operative side. Forces that seem to be influencing this drift are the government's desire to deregulate, the cost to industry versus current return, and public awareness and expression of concerns over the morass and complexity of environmental issues. Wildlife management has evolved rapidly, and there is no reason to expect the status quo on habitat programs now to remain static.

Lastly, funding of management programs has become very complex with the integration of private, governmental, and industrial programs. It is obvious that general revenue funding cannot meet the costs of management at the current level of sophistication required in an industrial/agricultural area. While a number of funding initiatives have developed, success will be related to our continued ability to influence the impact of major financial and land-use institutions within society.

As I said at the start, there are better ways to do business, for industry, for wildlife managers, and for wildlife.

Wildlife management (session 2)
Industry/wildlife - Can they both benefit?

FORESTRY-WILDLIFE MANAGEMENT TODAY AND TOMORROW
INDUSTRIAL VIEWPOINT

J.W. Toovey
Chief Forester,
British Columbia Forest Products Ltd.

The exploitation of timber and the right to hunt wildlife are historical, pioneer privileges that almost prevail to the current time. The "Bonanza" attitude has not been buried for very many years in Canada. Freedom to expand in all directions comes naturally in a country that, even to this day, is under-populated by world standards.

My father homesteaded land in the Province of Alberta, coming here from Great Britain with a strong desire to be a rancher. To him, it was simply, "first come, first served", and he got what he wanted.

You all know that legislation has had a hard time keeping up with the appetite for Canada's resource smorgasbord. However, legislation did catch up in time to rescue a lot of western Canada from a completely indiscriminate give-away. Here in Alberta, and in British Columbia, legislation is now in place to oversee, regulate, control, and administer almost every square metre of forest land. We work from some very well established ground rules:

(1) The public has retained ownership and control of forest land.

(2) The BNA Act gave the mandate for administration to the provincial governments.

(3) The private sector has been encouraged to develop the necessary infrastructure for the manufacturing of lumber, plywood, pulp, and newsprint.

(4) Forestry and wildlife and management on the same forest land-base have been developed and are maintained under separate jurisdictions.

With that type of a scenario, everyone should be "living happily ever after".

Challenges in 1983

It is safe to say that we have an infrastructure of regulation and administrative procedures--the cry of "over-regulation" is often heard and is probably a realistic symptom of government regulatory responsibilities that are being carried out to the letter of the law. But we are meeting here as professional managers talking about wildlife management and, hopefully, the co-management of a common forest land-base with forest interests. It should not be difficult for us to be realists and face up to the fact that the forest land-base, which is our common management heritage, is in trouble.

It is in a critical stage of evolution. As a forester, I see an ever-increasing level of good forest management that has evolved with great difficulty over the

past 30 years. I see silviculture increasing yields and improving our forest crops of the future. We even have higher levels of professional foresters and professional technicians working at the field level. We have good forest legislation in most areas, and I even see an improved, realistic application of regulations for other uses, including wildlife management.

The land-base that foresters share with wildlife managers, however, is in trouble. There is a new timberland "gold-rush" that comes in many disguises, but with a single objective of taking forest land out of multiple-use resource production and putting it into single use. In some cases, it is motivated by a preservation, reservation, "lock-up" philosophy. In others, it is disguised as pseudo-agriculture or hobby farming. It works on the very simple premise that forest land has very little value and that western Canada, in particular, is an area of super-abundance. Both of these premises are dead wrong.

As a forester working in western Canada, I know that there is no super-abundance of forest land at the base of the next rainbow. That part of the Camelot scenario died well before the 1960s. Do you agree that the challenge to forest land by other users should be of top priority to foresters and wildlife managers?

Everyone here has seen the benefits of co-operatively used forests for timber production--be it the interface among fishing, hunting, timber production, cattle range, or recreation. But do the legislative mandates which we all work under as individual users' groups bring us closer together as co-managers?

Do we really project a united front of foresters and wildlife biologists, who espouse the sharing of a single land-base, to the general public we meet? Or do we appear to the public as quite separate entities doing our own things? I am convinced that we still feel that we have the luxury to operate as individual prime users, often giving lip-service to the integrated-use philosophy on official occasions, such as this meeting in Edmonton, which requires a polite interface with a counterpart forester and/or wildlife specialist. But, just as quickly, we will return to the comfort of our job location and reassume the "me first" theory.

After all, I am a professional forester working for industry, and I have got to get my priorities straight. After all, you are professional biologists with a management mandate and an arsenal of legislative ammunition to control, if possible, the on-rushing horde of fibre farmers. That may have been the scenario when we did have super-abundance in all ways, or perhaps when we were not faced with critical shortages, including a diminishing land-base and real cuts in governmental and industrial budget dollars. Foresters and biologists meeting in Edmonton in 1983 must be aware of a common need for each other's support. We are faced with some critical challenges and the need to do some practical soul-searching.

And it is not all tied in with current regulations. Here are some of the challenges as I see them:

(1) The common land-base that we as foresters and wildlife managers share is finite. It is not going to get any bigger.

(2) Our professional expertise in parts of North America and Europe has shown that intensive management practices can enhance both of our resources over time, on the same number of hectares or less. Have we in Canada recognized this?

(3) Funding from provincial and industrial sources is not adequate for the job facing us. Legislative assemblies who represent the real landowner are not forthcoming with increased budgets for governments. Companies in many cases are coming out of a devastating recession with some very tough fiscal programs.

(4) The need for an adequate data-base is not clearly recognized on both sides of the management fence from the viewpoint of forestry and from that of wildlife.

As you may have guessed, I have waited a long time for a chance to come to a meeting like this and to say simply that I personally believe we have had the luxury of "doing our own thing" for too long.

Now we are being forced closer and closer together. Necessity dictates that we work out solutions that require a lot of common sense. Solutions will have little to do with legislative regulations or administrative manuals. It will invariably be individuals who will develop formats for managing our resources, incorporating a sense of realism that we may not have experienced in the past, and it will require less money and fewer people but, hopefully, far greater efficiency in getting on with the job. These individuals are people who are comfortable at the job of managing. Again, the key to progress will be the attitude towards solving management problems, not allegiances to administrative legislation or rule-books.

From my experience, I say: "Give me a forest company that is now easily meeting and sometimes surpassing its forest-land commitments in the area of logging and silviculture, and I will give you a company that also has the ability to meet commitments in other resource areas". The majority of companies respond to good legislation and, as a result, develop good professional management techniques. The keys to professional management are professional management attitudes--this cannot be overstressed. Wildlife and forest management today and tomorrow requires a hard-nosed business approach to "getting on with the job". We need some daring managers in the forest industry and the wildlife administration businesses. We need people who are willing to take a chance. We need people who will only resort to back-up legislation as a last resort.

We have all heard that "real men don't eat quiche" and "real women", apparently, "don't pump gas". I believe that real managers don't need a lot of administrative legislation and rule-books. They are simply too busy managing for that.

Information data-base

However, good managers need good information on which to work. In other words, a firm data-base, as well as a secure land-base, is an essential ingredient to making sensible decisions. From my point of view, I feel that I have got a good inventory of timber by species and grade, by hectare, by compartment. I evaluate soil and minor vegetation, and break down the area completely into bio-geoclimatic zones.

I have get a big advantage over my colleagues in wildlife. Once tallied, my timber and soil types do not wander off. They stay put. On the other hand, fish and wildlife habitat managers have trouble--their inventory subjects do not stand still. In many cases, our inventories are funded by a government and an industry who have to know what is there for production planning.

The industry, in this case forestry, is a key source of revenue for many governments, such as British Columbia. Despite real need, a similar priority and budget quota is not set for wildlife planning. We end up matching our data-base at different levels of sampling intensity. A forester and a wildlife biologist should both be working with hard data. Government regulations and administrative procedures will only lead to policing, not management, if factual data are not available on both sides. It will only end up with provisional decisions that have to provide for unrealistic contingencies or long-term moratoriums.

Knight Inlet study area

Speaking of moratoriums, let us talk about one example I am familiar with. At Knight Inlet, in coastal BC, British Columbia Forest Products Ltd. (BCFP) operates a tree farm licence with an annual allowable cut of 223 000 m^3. The area is timbered on the mid and lower portions of the till slopes, within sight of retreating glaciers. The productive forest land accounted for by this lower-elevation terrain is only 12% of our total licence area, which includes generous portions of the coast mountain range, and even a part of Mt. Waddington, British Columbia's highest peak.

This is mountain-goat country, with the distinct migratory patterns from upper-elevation tundra for summer range to the lower mature timber for winter use. There was no inventory of the goat population. There was no inventory of their habitat. We simply were told that it was a valuable area of habitat. The obvious solution was simply a moratorium on all timber on the east side of the valley, which was identified as "potential habitat". This would have meant an arbitrary reserve on a band of timber extending for 34 km, with a value of many millions of dollars. The reason for this moratorium was that no habitat inventory was available, and with no prospect of funding one.

The story, however, does have a happy ending. Real need developed a solution. The inventory was carried out using a BCFP helicopter, with Fish and Wildlife Branch staff working with our company biologist. There, over a period of years, it was clearly shown that goat habitat was restricted to very small portions of this potential moratorium area. The goat habitat in the timber was carefully connected with historic trails to the upper tundra areas that were used for hundreds of years. This modest habitat requirement was invariably associated with traditional sources of salt/mineral-licks. The moral of the story is that more and more collaboration and co-operation will have to take place in the future in order to develop practical planning programs.

This does not require legislation. It requires common sense. The same applies in many areas of coastal British Columbia for interface with fisheries managers. Foresters and biologists must make every effort to collaborate on real data inventories, which are the bench-marks for realistic planning development. Public demand for fiscal restraint in government will mean less staff and smaller budgets. That cannot be emphasized too often in 1983 in western Canada. The forest industry in British Columbia reduced its staff by an average of 25% in 1982. Despite optimistic signs of economic recovery, I can assure you that we will be doing a lot more with fewer people in this decade.

Greater responsibility

I have tried to point out that genuine efforts at co-management between wildlife and forestry can result in real management progress. This can be worked out with a change from our traditional single-user protection attitudes, and an improvement in comparative bench-mark data from which we work co-operatively.

In some cases, this is going to mean that industry will have to assume greater responsibility in working in practical areas of management, such as inventories. We are going to look out past the tree syndrome. However, if we look around, we will see that many industrial companies in the forest sector have already hired wildlife biologists, hydrologists, fisheries biologists, and soil experts on a full-time basis. It is not unusual now for wildlife and fisheries inventory data to be included in forest management working plans.

I speak from personal experience when I say that I am comfortable working with my counterparts in the Fish and Wildlife Branch, when we are collaborating on planning in which we have been responsible for part of the preparation--the goat inventories or stream-reach data for salmon and trout. However, it is impossible for the world to stop so that we can catch up with all the inventory data that will ever be required to do a perfect job.

But it does not take long for real managers to develop an appreciation of each other's resource uses. It is not uncomfortable rubbing shoulder-to-shoulder, particularly when prompted by genuine need. It should not take long for a real wildlife habitat manager to appreciate what large, long-term habitat reserves can do to cutting sequences or allowable cuts in the forestry sector. The real world of finances has to be faced up to and tackled head on.

No one likes encroachment on one's territory. No one likes to have to justify everything through a cost-benefit analysis, but this is what future management will demand from both sides--forestry and wildlife. We, the managers, should be putting together the bench-mark information basis. We should be the people who are developing the cost-benefit analyses on realistic terms that recognize both users.

In the future, we will be challenged to make knowledgeable trade-off decisions that we may never have thought of when we entered our individual professions. We are going to be forced to accommodate each other rather than rely on retreating to safe legislation that may protect our needs on paper.

Legislation and administrative procedures notwithstanding, foresters and biologists are now re-examining their attitudes towards co-management of each other's resources, and I see positive results coming out of many parts of western Canada. If the foresters and wildlife biologists are not comfortable with the heat of progress, they should step out of the way. Practical, cost-effective planning takes into account workable prescriptions and pushes aside, very often, the safety of absolute protection. We are working our way into an era of practical trade-offs, which include enhancement and restoration work. Wildlife and forestry management--today and tomorrow--requires some giant steps. I certainly hope we will be able to keep pace with the job that is facing us.

I would just like to quote from a paper given by Jim Walker, Chief, Habitat Protection, British Columbia Fish and Wildlife Branch. He simply said, "The new

thrust of habitat management will encompass positive aspects--and play down the more negative aspects, such as, God forbid, the laying of charges".

FUTURE RESPONSIBILITIES OF GOVERNMENT AND INDUSTRY

L.W. Mottus
President,
Associated Resource Consultants

When I was asked to present this paper, I was given some very general guidelines on what I should attempt to address. Some of the suggestions were:

- Where does industry fit into the "ideal" management system?

- Can wildlife co-exist with industry?

- What changes in regulations or philosophies are needed for industry to have a meaningful role in the "ideal" system?

The more I thought about it, the more confused I became. It is, to say the least, a very intriguing subject--future responsibilities. I did, eventually, reach some conclusions, but before I discuss them, I would like to suggest that the audience keep in mind the interpretations of the previous speakers at this conference for two reasons. Firstly, this should help to demonstrate the complexity of the problem, and secondly, it should clearly show that whatever does happen in the future, it will be different from what it is today.

To present my thoughts, I have organized my talk around three basic subjects:

(1) What will the future be like?

(2) What is the "ideal" management system?

(3) What are the future responsibilities of governments and industries?

The future

To hypothesize on the responsibilities of governments and industries at some future point in time, you have also to hypothesize on the state of the world at that point in time. Obviously, if the world in the future is going to have wall-to-wall people, there will be a different management plan than if the status quo is maintained.

I have assumed the following:

(1) Population - The population of the future world will be stabilized at a level that is not significantly greater than the current population. However, I would also suggest that the population of Canada will be significantly greater because of immigration.

(2) Distribution of population - I suggest that most people will, as now, live in the southern part of Canada, primarily in small to medium urban centres.

Small existing communities will be expanded, with limited new settlements. Ultra-large centres will be few.

(3) Environmental mosaic - The environmental mosaic (that is, the complex distribution of people, land uses, and resources over a given area) will be similar to that of today. I believe that we will still have wilderness areas, agricultural areas, and urban areas. More importantly, there will be intense multiple land use within those areas.

(4) Leisure time - Finally, the future world will have a significant increase in leisure, with more time at people's disposal for recreation and, if they wish, for secondary occupations. This will modify land-use patterns and the intensity of their use.

The "ideal" management system

Now, within that future scenario, I come to the subject of the "ideal" management system. Just for the purpose of my presentation, I am referring to the total management system. The significance of wildlife management within that total system can be treated as it will be within the minds of the listeners. What is the "ideal" management system?

I believe that it is a system that ensures that the best possible use is made of a given piece of land, and that whatever that use is, it is intensively managed to maximize its potential. This sounds easy, and it could be argued that we are already there, at least in certain aspects of our society. However, I believe that the future environment--that is, more people with more leisure time distributed over a very complex environmental mosaic--will require a different approach to management than is practiced today.

There are probably many different approaches to an "ideal" management system that is suited to a future world. However, I will suggest only one, which is decentralized management with a level of centralized standards.

Under this system, an area would be divided into a series of "environmental management units", each of which would be managed by an elected "environmental council" within a set of standards (or guidelines) established by a centralized government of some sort. This whole structure would be financed by users' fees. Under such a decentralized management system, day-to-day operations and developments within established guidelines would be handled by the local environmental councils. Other developments that were outside the standards that had been established for a unit would require the authorization of the central government.

An example of such an environmental management unit could be envisaged by considering the City of Edmonton. Here we have a well-defined area (within city limits) that encompasses an area with similar land uses (primarily urban in this case), managed by a local council (City Hall), and functioning within well-defined guidelines. What I am suggesting then is that we expand the concept of municipal government to the total environment. This, I believe, would decentralize the management of the environment into small, locally controlled units; a situation that I think will be desirable, if not required or necessary in the future.

Future responsibilities

The comments I have to present are based on my scenario of the future world with the concept of the decentralized management system.

(A) Responsibilities of the central government

For the purposes of this presentation, my concept of central government would probably be some sort of a hybrid between the federal and provincial governments of today. I think it desirable to get the central controls of environmental management into a single type of government. I envisage six key functions for the central government:

(1) Define environmental units - Such units would probably consist of homogeneous land-use areas, based on the concept of the best possible use for a particular area. The units would be large enough to ensure that single-use management was avoided. Finally, the units would probably be structured around current land uses, not land-use potential.

(2) Establish and maintain a data base - Each management unit would have a computerized data base, updated as required to reflect the most current land-use and inventory data. The centralized government would maintain the data base, and establish procedures for data collection by other parties.

(3) Establish operating and development standards within each management unit - The centralized government would establish these standards for each unit. Such standards would probably be structured around current land-use patterns, but would also be based on the concept of best possible use of the land. The standards would not permit any action that would be detrimental to the best-use concept.

(4) Inspection for compliance - The centralized government would also undertake an inspection function in this management system, and be responsible for environmental impact statements to ensure that the standards for the units were complied with.

(5) Environmental impact statements (EIS) - In the future world, as I am imagining it, any operating or development proposal that would exceed the standards set for an area, or any action that would encompass more than one area, one unit, would require the submission of an EIS. Approval would be required from the central government before the individual unit, the council, industry, or any land-user could deviate from the established standards for their unit.

(6) Baseline research - The centralized government would assume responsibility for baseline research that was for the benefit of all.

(B) Responsibilities of the local council

Concerning the local councils, the decentralized governments, I can think of three primary responsibilities for each unit:

(1) Day-to-day management - The local council, with their staff, would be responsible for the day-to-day management of the unit. All operations and

developments in the unit that fell within certain standards could be controlled by this decentralized council.

(2) Inventory requirements - The inventory of resources and land uses within the unit would also be the responsibility of the local government although, as I said earlier, the problem of information storage would be the responsibility of the central government.

(3) Collection of users' fees - I would imagine that users' fees would be required in the future from all land-users within the unit. They would be collected by the local councils (local governments), and would finance all of the operations and development of the land uses within the unit. It would be probably a juggling of the taxes and licences that we currently pay, but I think that the responsibility for the allocation of those funds in managing their individual unit should go to the local level.

(C) Responsibilities of industry

Finally, we get to industry. However, in the scenario that I have presented here, industry is not an automatic major participant. Industry, in an "ideal" management system, would be conceived as one of the many users of the land.

If the concept of an "environmental management unit" is accepted, based on the concept of best possible use of the land, it is obvious, I think, that different areas will have different land users. If you are in a unit where, say, forestry is the prime land use, then the forest industry in that area would obviously be a major player. However, in other units managed for other reasons, for example wilderness areas, industry might not even have a presence.

Thus, I think, in the future, that the responsibility of industry, and for that matter all other users of the land in a unit, will be to participate in the localized governing of their unit and the payment of users' fees.

Summary

Our future environment, full of recreating people demanding total use of their surroundings, will be intensively managed at two levels: firstly, by a central government (probably a federal/provincial hybrid) that provides overall policy and direction; and secondly, by a local council (another hybrid integrating provincial, municipal, NGO, and industrial interests). The local council will have the day-to-day management responsibilities within a certain unit of land. Users' fees will be a fact of life, and the concept of ensuring the best possible use for a piece of land will be irrefutable.

Conclusion

To conclude this presentation, I think the point should be made that, once the best possible use for the land has been defined, each user would have the right to be there. And with that right would be an obligation to respect the rights of other users. There would be no good guys and bad guys, since good guys and bad guys evolve through self-interest. An "ideal" management system should breed mutual interest through integrated management. Here is food for thought.

Wildlife management (session 2)
Industry/wildlife - Can they both benefit?

SUMMARY OF DISCUSSION

J.G. Stelfox (Canadian Wildlife Service) asked if there was a need for a national wildlife inventory, saying: "If we are really serious about integrated forest/wildlife management, there would be a tremendous advantage to tying a national wildlife inventory into the existing national forest inventory.". Tied in with that, the two agencies could work more closely together on land classification and inventory. He added that there was a need for the two organizations to get together and modify the inventory system.

J. Toovey (British Columbia Forest Products) replied that basic inventories could be very deceiving. They would look good and take up a lot of time and money, and give a lot of people employment, but unless they were geared to specifics, were of little use from a user's point of view. This did not detract from the need for basic data on wildlife nationally. However, with limited money available, they should apply it to more site-specific areas that they knew would have interface with development within the next few years. That would have more practical value from an industrial point of view.

D. Neave (Alberta Fish and Wildlife Division) said that the need for an inventory was based on the objective for it: was it for planning purposes at a regional level, or was it down to the site-specific, industry-related operation? A national inventory would not do much in the latter regard. In his opinion, they could not expect to have a detailed wildlife habitat inventory for, say, a province the size of Alberta. He had been trying to convince people to piggy-back on the existing ecological land classification or forest inventory programs, and try to convert their information down into community types. There was no reason to spend millions of dollars and start from scratch right after forestry had finished their $15-20 million inventory.

L. Mottus (Associated Resource Consultants Ltd.) said that, when collecting data, they should identify the requirements of other users, so that an overall encompassing package could be developed. He added that they had to keep in mind a functional use for that data.

F.F. Gilbert (Washington State University) stated that one of the biggest areas not covered by the agenda was the educational system related to wildlife managers and wildlife management. In Canada, he said, it was important to recognize that the university education of wildlife people was in the hands of a relatively small number of individuals; wildlife was really an appendage to other disciplines within the university structure. It was critical to recognize that wildlife management was really going to be dependent upon the type of education that individuals going into the profession received. He said, "Until we recognize that it is important to include such aspects as an understanding of legislation and policy, land-use planning, environmental impact assessment, economics, and social, political and scientific factors, as well as the basic science and ecological under-pinnings that have been traditional, we are going to be in a position where we will be reactive." He continued, instead of being integrative, instead of being positive in their approach, they would tend to continue to be negative and reactionary to the needs of industry and multiple land-use planning.

Mr. Mottus agreed that the need to gear the educational system more into the integrated evolutionary process was a real concern. There would always be the need for the wildlife specialist; there would always be those individuals who were totally dedicated to that field. He felt, however, that in future there was going to be a greater need for the "generalist", and the educational system was going to have to acquaint the specialist with that general problem. He suggested that biological schools should have an orientation course in what development was all about.

Mr. Toovey explained that forestry schools in the 1980s had evolved to the point where they were training foresters t appreciate and understand other disciplines. Universities were graduating people who could come out as foresters with wildlife management as their main objective. What was more important was that they were teaching foresters to be familiar with the tools that were available in other disciplines. Forest managers of the future did not have to be biologists, but they had better know what biologists could do for them, and they had better know what the resource was all about. If they did not, they might not be managing as effectively as they should be.

N.M. Simmons (keynote speaker, Alberta) stated that if land-use planning was going to be effective, it would be a gaggle of policies from different departments brought together and ratified by the legislature. In his opinion, forestry, along with recreation, hunting, "dicky-birding", etc., had the greatest negative impact on wildlife, wildlife habitat, watershed, and fisheries of any use he knew. However, his concern was not with industry, but with government. It appeared to him that forest managers, i.e., government, were operating in an ad hoc manner without the long-range guidance of forest management policy--not timber management policy, but forest management policy; politically ratified policy.

He said that he had no way, short of the courts, to influence forest management decisions that affected his livelihood. He suggested that he would have if there were a publicly aired forest management policy. The public input that was possible in British Columbia and Alberta was in their wildlife management policies and plans, which were ratified by the various legislatures. To his knowledge, forestry had no such policy at the public level in those two provinces, and maybe in others as well. He asked if they, as the Federal-Provincial Wildlife Conference, should resolve that these forest management policies should be completed, aired in public, and ratified as soon as possible.

Mr. Toovey said that Dr. Simmons had just outlined a theme for a very productive conference, because nobody on the panel could answer, realistically, without a very long dissertation. He mentioned the fairly new Forest Act of British Columbia, which was put together at the end of a very long public hearing. This act allowed for public involvement in the renewal of public licences on public land. He said that there had just come out, directly from the British Columbia Ministry of Forestry, a statement on public involvement that gave the opportunity for public involvement in a lot of processes that involved the decision-making and criticism of decision-making that took place on public land.

He added that one of the disappointments was that there was no evidence of a lot of public interest: the majority of the general public did sort of trust what was going on. The public meetings had not been a great success, but he thought that what Dr. Simmons mentioned was grounds for a very good seminar to air all those things, and find out what was happening in that area and what was available.

Mr. Neave stated that, while forestry might be perceived as having the greatest negative impact on wildlife, it could also provide the greatest positive benefit for fish and wildlife. He reacted to Dr. Simmons' comment on forest policy, saying that they should not throw stones very hard at forestry, because it was only recently that Alberta had got their fish and wildlife policy, and "... we have a long way to go before we get down to the level of planning and strategy design that our counterparts are already into". He believed that it was fair to say that, while there might be a lack of a "printed policy on forestry", there was a lot of legislation regarding forestry and timber management that reflected government policy. Alberta was very fortunate to have the "East Slope" policy, an overriding land-use policy, that clearly put into perspective forestry, fish, and wildlife, and other resources, and how they were supposed to relate; going as far as committing the government to planning programs. He suggested that things were not as black as Dr. Simmons perceived them to be.

G. Sheehy (Canadian Nature Federation) asked about the trail system that Mr. Neave had mentioned in his presentation. How could the trail system on land be managed to make sure that people stayed on the trail? Would the vegetation be managed and the trails be oriented to encourage people not to step off into the bush?

Mr. Neave replied that the designated route system was a proposal that they would like to try in Alberta, possibly next year, but it was open to public support and negotiations. The normal approach to managing the trails would be to look at their densities and only to designate trails that were open to the public. Those would be marked and all other trails would be closed.

J. Robison (Alberta Trappers' Central Association) pointed out that, at the present time, designated routes were to restrict vehicular traffic, not foot traffic.

M. Hummel (World Wildlife Fund) asked Mr. Neave why the Alberta Wildlife Division tended not to get involved in the policy generation part of land use in its early stages. He also wondered if this was true of other provinces and the federal government.

Mr. Neave replied the reason that Alberta had not been involved in land-use policy as much as they would have liked was because, in the past, they were perceived as opposing development. The policy he was referring to was the "Land and resource policy", which basically stimulated development, and they had not been perceived as being able to play piggy-back on policies that would enhance fish and wildlife, and would encourage industry to do things. He remarked that the "East Slope" policy and other more recent policies indicated that there was some change. He could not speculate on the other provinces.

C. Freeman (Indian Association of Alberta) objected to a statement that Mr. Neave had made that the Slave River Dam possibly would rehabilitate the delta. That kind of statement was fairly reactionary and he was "jumping the gun". There still had to be a lot of research into the dam in terms of the habitat of the area and the population that played a role--that was the native people: they had a right to keep the habitat they had got, and carry on their existence. A statement like that, coming from professional people, tended to set a trend, and he asked Mr. Neave if he was in favour of the dam and, if he was, did that not contradict his other statement in the area of interactive possibilities.

He noted that Manitoba had a surplus of power that Alberta could buy; he would like to see interactions of this type and more discussions, instead of basically agreeing to the Slave River Dam. He also mentioned future responsibilities and the idea of local control for environmental issues or industrial activities. There were a lot of people who were now voicing their concerns at the local level, but for some reason they were not being heard. Right now, they were being ignored or were struggling to get funding to have their opinions heard and to do the proper research needed. He wondered if encouragement or recognition could be given to those particular groups who were voicing their opinions.

Mr. Neave clarified his remarks, stating that he was not saying that he advocated or did not advocate the dam. The point he was trying to make was that, if the dam went head, the Alberta Fish and Wildlife Division should be looking at it in a positive, as well as a mitigative, manner. The questions to be asked were: Can we do something? Can it actually enhance fish and wildlife if it goes ahead? They should also look at it somewhat positively: that was the point he was trying to make.

Mr. Mottus commented on Mr. Freeman's second remark. He agreed totally with the need for local interests to be reflected in any decision-making process in a certain area. He said: "When you are into the application stage of a major development, you go through ideally, and theoretically legally, a full-blown environmental impact assessment of the project, taking into account all relevant issues. Most people who are involved in these assessments always feel that their concerns are not being given enough weight, and in many cases it is true." This was a common concern of all groups, but he thought that the future looked positive; that they would have integrated planning and all interests would be incorporated.

Mr. Robison asked Mr. Toovey how much research his company was doing (and others in the industry) towards making use of aspen for pulp. He thought that companies should put more research into uses for aspen, as there was a lot of it available.

Mr. Toovey replied that the problem was not so much in the techniques of pulping as in their customers' acceptance. There were mills all over the world pulping hardwoods similar to aspen. The reason why western Canada was even in the market was that people bought their pulp because it was unique (long-fibred and coming from conifers). He explained that at this time there was no mandate for short-fibred pulp; there was not a sufficient demand for a company to construct a pulp mill to accommodate hardwoods. Other countries bought Canadian long-fibred pulp to blend with their own; they were paying a very high price for the characteristics found in Canadian conifers. He agreed on the desperate need for a market for aspen, and he assured Mr. Robison that people were looking at all possibilities.

S.W. Speller (Petro-Canada) asked about computerized data in management systems, saying that his company had considerable use for environmental information, both on the resource and how people used it, particularly for the purpose of oil-spill contingency planning and response planning. He requested information on the actions taken by the provincial and federal governments to computerize more of their wildlife distribution and human resource-use information. He asked, if that information was going to be put on computers, was there a way that industry could use it, and how could government agencies and industry co-operate?

Mr. Neave replied that the Alberta government had spent the last 3 or 4 years developing a number of computerized storage and retrieval data systems. He

thought that it would be years before they could effectively use that system, because their data was in such a mess. He did not see a lot of benefit in the short term, but that in another 5 to 10 years, fish and wildlife inventory information would be on a computerized system available to staff.

Mr. Mottus said that quite frequently he had the need to draw data from various sources, and to his knowledge there was no good functioning system that was of much use in assessing potential impacts from development. He thought that one of the major mistakes of the provincial and federal governments was that they had not moved quicker into the computer age. All the hardware was available, and had been for the last 10 years. He did not think that it would take the 5 to 10 years that Mr. Neave had predicted; they were generating too much information now, and it was being lost everywhere. He said: "We are wasting money doing studies that just get thrown on some shelf and forgotten." He felt that this should be a priority of government.

L.H.Mayeda (Nature Conservancy of Canada) asked Mr. Neave and Mr. Toovey if they saw a greater involvement on the part of government or industry, not only in assisting in purchasing land, which was the best but most expensive way to go, but in other areas of habitat acquisition or protection, such as conservation easements or land swaps.

Mr. Neave mentioned Alberta's Habitat Trust Fund. He said that it had not been that successful to date, but this was a government problem in their lack of advertising and encouragement for people to put their funds and their trust in government. They certainly needed both the support and financial encouragement of private organizations and individuals. There was no way that governments were going to acquire or manage enough land for wildlife without that support.

Mr. Toovey commented on British Columbia's Ecological Reserves Act. He said that it was an excellent piece of legislation from forestry's viewpoint, allowing companies to identify areas that had a bench-mark value for future work. His company had encouraged this program, and had participated to the point where many of their foresters were custodians of certain of those areas that were within the management areas they operated under. He could see a potential for expansion so as to be able to preserve a lot of those areas for scientific research in the forestry area in future. He thought this could also be associated with wildlife habitat.

T. Beck (chairman), in his closing comments, said he thought that the speakers had certainly addressed and answered the questions: "Can they both benefit?", i.e., wildlife and industry. It would be an interesting topic, he said, for some future workshop to address the extension of that question: "Do they benefit as often as possible?". As a practitioner in trying to deliver those benefits in years past, he added one cautionary note, that they could become over-confident in their ability to deliver benefits. He was pleased that there were some areas in this country that were set aside for the priority use of wildlife. In other words, they had some cushion against making mistakes.

Mr. Beck continued: "The optimism that I sensed in the points that the speakers brought out reflected the optimism and the spirit of co-operation that people like Mr. Tétreault (CWS) mentioned when the conference opened. One thing that we have touched on very lightly to this point is public involvement. I think that, growing out of this session, it is obvious that if there is to be more

industrial participation in delivering benefits to wildlife, this clearly would meet with increased public interest, and perhaps concern, unless it is matched by a clear set of principles for doing that, and by meaningful public involvement. I think the speakers have, in effect, set the stage for our next session, and I would like you to join me in thanking them."

Wildlife management (session 3)

PUBLIC INVOLVEMENT: PRESENT AND FUTURE

E. Kure
Director, Environmental Relations,
Alberta Fish and Game Association

The role of session 3 is to examine "Public involvement - Present and future" in wildlife management. I sincerely hope that we will be able to do justice to the topic. I think this is about the seventh Federal-Provincial Wildlife Conference that I have attended. To be asked to take part is, indeed, a sign that public involvement is recognized by this august body as an important part of the co-ordination and strategy of managing wildlife in Canada.

Accepting management

I think, too, as I have listened to the other two sessions, that they have set us up pretty well without infringing on the area of our particular session. In reading the reports, I noticed a particular phrase in one of them, and it said: "Noah didn't need a permit". I would like to say a few things about that. There are still people in our society who feel that way.

I had a chance to talk to all of our panel members and I have a fair understanding of their work, and a little bit about how they feel. I believe, along with the position that Noah found himself in when he gathered the animals into the ark, that poachers do not think they need a permit; most Indian people do not feel they need a permit to harvest wildlife; some managers of wildlife do not think they need public permission to regulate the users of wildlife; some groups want to be regulated in their use of wildlife and some groups distinctly do not; and there are groups that do not want anyone to use wildlife. So, obviously, we do have a problem, and since we should not dwell on problems today, but work towards some solutions, I hope that our panelists will do that for us.

It is hard to look at the present and the future without looking a bit at the past, and it is in our nature to learn from the past. In the good old days of few people and, from what we hear, of plentiful resources, we did not have a problem. Now, with the emergence of wildlife and professional ideologies, we have professional people who sometimes feel that they are best trained and equipped to make management decisions. I suppose the public perception of hunters and trappers who live on these resources and use them is not always in agreement with what we are doing. Therein lies a bit of our problem. I was talking to Chief Peter Kelly about this. I said, "I being a hunter and you being a hunter for most of our lives, ever since we were big enough to tote a '.22' around (and a sling-shot before that in my case), we probably feel we have somewhat of a professional viewpoint when it comes to managing wildlife at times, regardless of our academic training". Certainly, when it comes to public participation, some of us have spent a good deal of our lives working in that area. So, it will be an interesting challenge to see if our Indian people, our landowners, our leaseholders, our naturalists, and so on, can all see their interests being served by good wildlife management--or if we will continue to pursue the trend of the 70s.

Environmental quality

I picked up a copy of a paper that I consider worth citing. It was an environmental policy and decision-making paper, compiled by the Education Committee of the Environment Council of Alberta. It recently examined trends in public attitudes towards the environment, comparing six of the surveys and studies made between 1975 and 1981, and there were two outstanding things that came to light. Number one was the public commitment to environmental quality, and how it continued to be a strong force in our society. While public concern with the maintenance of good environmental quality does not exactly specify wildlife, it is this quality that fish and wildlife depend on and that we are talking about here. Despite economic woes, this concern is still very high. A large majority of Albertans, both urban and rural, still show a strong willingness to change personal habits, and even to increase personal expenditures, to improve their environment. People widely accept individual responsibility for environmental quality, but feel that the government has let them down. Regulations and their enforcement are seen to be inadquate. I think this study is a little hard to take, although it is not too far off the track, if at all.

The number-two thing on which they made a point is a leadership gap in relation to environmental quality. The public knows the basic environmental issues, but needs direction on how to deal with them. Albertans are committed to action, but are not well enough informed as to what they can do or what should be done, either at the personal or the public level. People are looking for realistic programs.

I thought those two points were significant enough to be presented to you, because this is an unbiased study, and is broad enough in its scope to be realistic, and not just a one-shot deal. The bottom line is that Albertans share a strong public will towards responsible environmental action--personal, corporate, and governmental. The changes in public attitude illustrated in the surveys show clearly that commitment to environmental quality has become permanently ingrained in the value system of Albertans. Those of you from other provinces and out of the country, I am sure, will recognize that this may fit your locality as well. People need common-sense, practical environmental programs that can focus their interests and energy at all levels. They want regulatory programs that are reasonable, fair, and equitable--and that work.

The panelists

I think I will cease my comments at this point and call on our panelists. Gregg Sheehy is first. He recently took the position of Conservation Director with the Canadian Nature Federation. He has worked as a consultant in Ontario, particularly on resource issues.

Erwin Thiessen is next. He will wear his rancher's hat to signify that he is not just the Mayor of Coutts. I am sure that, besides representing the urban municipalities at this conference, he wears a number of other hats. I think I would rather let him tell you about his perception of the guidelines that we have given him to deal with, and how he sees things in his role as a rancher/farmer/decision-maker. I should mention that he is standing in for Lloyd Jones for this representation.

For our next speaker, I am going to call on Chief Peter Kelly. I think there is a possibility that a new day for wildlife is coming because, if we can put our act together as Mr. Tétreault has suggested, it could be pretty exciting to see what we can do between federal and provincial governmental agencies, and with the help of the public users' groups. We are here and we are willing to help. Our speaker may wish to say how he sees that help. Chief Kelly, Regional Vice-chief of the Assembly of First Nations, comes from a reserve just east of the Lake of the Woods in Ontario. He has had a good education and a lot of experience, and I expect that he will give us something to think about.

Our final speaker comes from Saskatchewan. Dennis Pattinson is Past-president of the Canadian Wildlife Federation, as well as a Past-president of the Saskatchewan Wildlife Federation. He is a business man, and serves on a number of advisory boards to government--at both the provincial and federal levels--that have to do with management of fish and wildlife, and also a committee on the right to carry firearms.

(After the four panelists had spoken, Mr. Kure gave this summary.)

Summary

Dennis Pattinson certainly gave us a few things to think about. He has recognized the fact that we are shareholders in the resource, and that you who are managers are basically the suppliers. He has recognized, I think, that we look to you to protect the resource, but at the same time to make sure that there is an equitable distribution. He gave us a good example in "getting our act together and getting a clear definition", which certainly goes back to our keynote speaker, Norm Simmons, who said: "We had better get our act together and examine our roles, possibly some new roles, and make those roles fairly definitive, so that we get rid of this tokenism concept in public participation".

Those were wise words that Norm Simmons gave us, and he also talked about a couple of structures that we should look seriously at--both in the management field in the way of an agency structure, and in the enforcement field, and how we might involve our people there.

One of the last things that Dennis Pattinson said about wildlife agencies is that they must have a veto power. Public land sales are an excellent suggestion. This has been giving us a bit of heart-burn in Alberta, and we are wondering, I think, where some of our decisions are made for disposing of public lands.

Chief Kelly put his feelings squarely before us, and also the Indian nations' objectives. He indicated that we find ourselves in the same arena, as shareholders in the wildlife resource, and gave his support to the Canadian Wildlife Federation's position, which is for conservation, not protectionism. I think this is a good indication that when we recognize our common interest, intelligent people should be able surely to find a way of managing that very important resource for our collective interest.

Erwin Thiessen did a pretty good job considering the fact that he claims to be only a part-time rancher. Although there's no profit in it, he says, still everybody wants to ranch, even if it is only on 5 acres. I think that what I got from Erwin's talk was that, in the end result, the rules had better be good. If we are going to make rules, they had better make sense, and they had better apply to everyone.

Going back to Gregg Sheehy's address, while he dealt more specifically with the issue of land designation, and the probable need for it, I really think the important message that I wrote down here was the need for a better allocation of land. He was talking about the forest/wildlife interface. Certainly we read every day, across the country, about how badly the forests of this country are managed, and how over-committed they are.

I think there was a good deal of agreement when Mr. Sheehy said that in Alberta we have had some successes of late; they were long overdue, but they were successes in my opinion. A forest/wildlife interface is taking place, and the roles are being worked out--and not any too soon. He also reminded us of the need for consistency in policy commitments. If we are going to draft a policy, Canadian or provincial, it had better make sense. And, if we are going to draft this stuff, we had better live up to it.

Summing up

Speaking from my position as chairman of the panel, I would like to sum up briefly. I believe there are signs of change; some begrudgingly, but users' groups are recognizing that the resource base has limitations; managers are showing signs of trading off some of their ideologies for management; and the public is away out in front of government in environmental concerns. We had better take note. Managers and users recognize the influence of an urban society, uneducated to wildlife and unconvinced of management. We may be vulnerable to this movement unless we get our act together. The protection influence is out there, and it is big business. The anti-trapping and anti-hunting movement is big business because it attracts money. There is no doubt, in my opinion, that the future of well-managed wildlife and well-accepted uses of the resource will depend on our ability to put our act together. If the "anti" groups succeed at all, it will be our fault for not having been able to market our management strategies and sort out our roles.

Norm Simmons challenged us to sort this out and get it done--because tomorrow may be too late. There must be more than a token, or ad hoc, approach to public involvement. Tokenism creates critics, while partnership in management creates responsibility, and a critic becomes an advocate. I think managers are beginning to recognize that.

Dennis Pattinson pointed out that the role of a large, powerful, wildlife agency in a province can be the best advocate that any manager could possibly have.

I am sure the audience may want to participate at this point in the discussion that follows immediately.

(A summary of the discussion follows the panelists' papers in these transactions.)

Wildlife management (session 3)
Public involvement - Present and future

THE ROLE OF THE NATURALIST

G. Sheehy
Conservation Director,
Canadian Nature Federation

To explain what I mean by a naturalist, I will describe some of the policies or principles of the Canadian Nature Federation (CNF). I suspect that many of you are naturalists and will find some of your own thinking here. As an organization of naturalists, we are dedicated to the appreciation and enjoyment of nature. A basic premise of this view is that wildlife species have a right to exist without the need to justify their existence in terms of their usefulness to mankind. The CNF supports the "World conservation strategy", which has as one of its objectives "to ensure the sustainable utilization of species and ecosystems... which support millions of rural communities as well as major industries". However, we stress that wildlife management must aim to protect ecosystem integrity rather than solely enhance the production of any one species.

Involvement and co-operation

Wildlife managers can see the evidence of this naturalist's view in the increasing involvement among federal and provincial agencies with non-game wildlife, rare and endangered species, and ecological reserves programs.

I was asked to refer to the CNF's effectiveness in dealings with governmental wildlife agencies, but it is difficult to identify many clear-cut successes or failures. It would be nice to recall an occasion when a government agency said, "Aha, we hear what you're saying, and we'll change our policies to suit you". But, unfortunately we cannot. Nevertheless naturalists can be an effective force in several ways.

We can act as catalysts, getting work going on issues. Government employees may not be able to speak out for one reason or another on certain topics. Acid rain is one example where groups such as ours were in front of governments stimulating what has been some very worthwhile work by Canadian governmental agencies and politicians. The initial incentive to establish the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) came from a resolution of an annual meeting of the Canadian Nature Federation.

Naturalists' groups have co-operated to present a united front on some issues. The Ontario Ministry of Natural Resources' "Land-use policy review" is an example. The CNF participated with several other groups in the review, stressing the need to formalize park proposals that had been considered for several years. We were quite pleased when the Minister, Alan Pope, recently announced 155 new provincial parks.

We publicize issues through our magazine, "Nature Canada", and through contacts with our affiliates and the media.

There is certainly room for improvement in communicating with wildlife agencies, and the different governments vary considerably in their efforts at public involvement. Environment Canada can be commended on its public consultation meetings. No other federal agency and no provincial government has such an open, broad review. CWS is now analyzing its roles and responsibilities, and has provided opportunities for public comment. The policy statement that results from that review will provide a focus for responding to CWS initiatives.

Policy or guidelines?

Last September, the Wildlife Ministers' Conference approved the "Guidlines for wildlife policy in Canada". This document could guide wildlife management throughout the country. But, you might question the nationwide commitment to the wildlife policy, because the 1981 draft paper was titled "A wildlife policy for Canada," while the final version is called "Guidelines for wildlife policy". The preface of the 1981 draft states that, "following adoption by ministers, the wildlife policy should be published in a form reflecting the commitment to it by all governments". The final guidelines state that "governments have agreed...to consider implementing, where appropriate and consistent with provincial, territorial, or federal policies, the actions listed...". We hope that these changes do not lessen government support for a national wildlife policy, and we hope that you will provide your support for the conservation measures it describes.

The guidelines advocate a "broad concept of wildlife to include habitat", and urge governments to "provide a basis in law for the integrated management of wildlife with wildlife habitat.". In line with this increasing attention to issues of habitat, I will outline two areas where the CNF has particular concerns and where we expect to be increasingly active. These are:

- forest management and

- the identification and protection of environmentally significant or sensitive areas.

Canada's forest industry may have greater potential to affect wildlife habitat than any other industrial activity. The identification of environmentally significant sites and their protection through nature reserves and other types of parks are important means of perpetuating vulnerable habitats, which might be lost under other land-management schemes.

The "Guidelines for wildlife policy" call for agreements between governments and industry to improve and extend wildlife habitat by integrating wildlife management with forest management. The guidelines stress the need to "harmonize forestry and wildlife objectives for forest lands and plan cutting and reforestation programs accordingly". The CNF strongly supports such initiatives, and this is a particularly good time for all of you to promote joint wildlife-management - forest-management programs.

Forest renewal

After many years of ignoring the fact that Canada is running out of wood and fibre, governments across the country are now citing the need for increased

spending on forest management. This frequently makes its way into the popular press.

Environment Canada's "Framework for forest renewal" is part of this new effort to maintain the industrial capital of the forest. This program, described in a policy paper published last September, involves new, federal-provincial agreements aimed at an approximate doubling of money spent by governments and industry to provide wood and fibre for market.

The policy paper goes into some depth about the mechanics of the agreements. On page 1 it makes a short statement that "forest land is also our principal recreation base and contributes to watershed protection and other priceless values.". It says that "the federal rationale for strengthening the forest resource base is a combination of economic, social, and environmental criteria.". That is all it says. Now, presumably, wildlife habitat is one of the "priceless values" referred to, but the "Framework for forest renewal" gives no real assurance that increased spending or the federal-provincial agreements will deal adequately with habitat concerns.

Environment Canada, with its broad mandate, should not promote "forest renewal" strictly from the standpoint of the forest industry. Those of us involved with wildlife management have a responsibility to make it known that such a narrow view is inappropriate. The intensification of forest management required to increase our wood supply will result in greater pressure on wildlife habitat.

The CNF has been involved to some extent in the past with forestry issues, mainly in our concern about aerial spraying of pesticides. But we recognize the need to take a broader look at forest management, and to consider the full range of activities of forestry agencies and the industry.

Our recent submission to the Nova Scotia Royal Commission on Forestry was a move in this direction. We cited the great lack of information on the impacts of forest operations on terrestrial and aquatic habitat. We stressed the need for environmental protection measures in management plans and operations, including the layout of roads, the scheduling of logging, the size and shape of cuts, and the design of equipment. One identified research priority was to consider the potential for biological control measures to reduce our dependence on chemical pesticides. We emphasized that comprehensive forest management had to include systematic efforts to identify and protect ecologically significant areas of the Province of Nova Scotia.

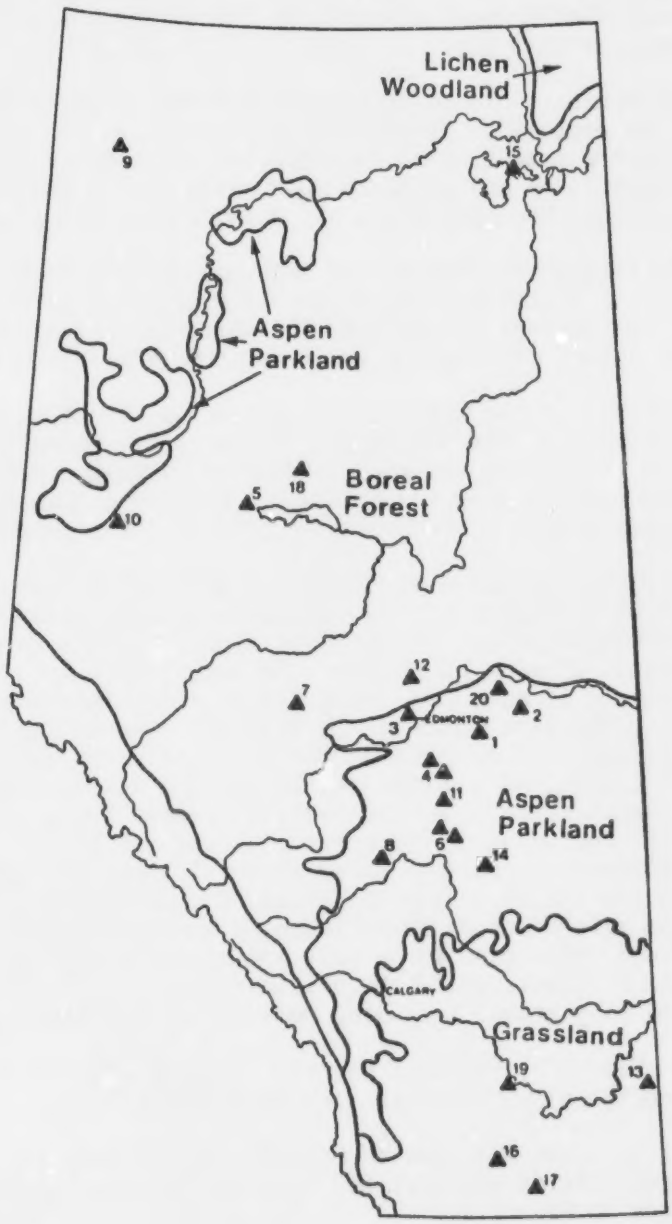
Government wildlife agencies, for their part, must ensure that protection of wildlife habitat is a priority in forest management. I do not see much initiative from the forestry community in this regard. I suspect that foresters are only too pleased at the present attention to issues of wood supply, and see little incentive to consider broader issues.

A good initiative by biologists is the Forestry and Wildlife Management Symposium to be held next spring in Vancouver. The symposium should stimulate interest in forestry-wildlife issues, and may lead to the desired co-operation between wildlife biologists and foresters.

Figure 1: WETLANDS FOR TOMORROW PROGRAM

LOCATION OF KEY WETLANDS

1. Beaverhill Lake
2. Bens-Watt Lakes
3. Big Lake
4. Big Hay and Bittern Lakes
5. Buffalo Bay - Horse Lakes
6. Buffalo and Spotted Lakes
7. Chip Lake
8. Cygnet Lake
9. Hay-Zama Lakes
10. Kleskun Lake
11. Little Red Deer Marsh
12. Manawan Lake
13. Many Islands Lake
14. Marion Lake
15. Peace-Athabasca Delta
16. Stirling Lake
17. Tyrrell and Rush Lakes
18. Utikuma Lake
19. Vauxhall Marsh Complex
20. Whitford and Rush Lakes



Nature reserves

The "Wildlife policy guidelines" call for governments to "plan and implement comprehensive programs to maintain the diversity and distribution of wildlife habitats within major ecosystems in Canada.". The term "within major ecosystems" was added since the 1981 draft of the guidelines. I do not know if this means that we will take care of our "major" ecosystems and forget about our "minor" ones. I am not sure that I could always tell the difference. I will not ask you to try to analyze that one.

Governments are to "establish systems of protected areas that include representative ecological types, giving priority to the protection of unusual habitats of limited extent, such as estuaries and old-age timber stands". The mechanisms for identifying and managing such sites need a great deal more attention than they are getting, because we are not doing a good job right now.

To illustrate some of the problems, I will describe some research I did for my master's thesis about Ontario's Provincial Nature Reserves Program. I looked at five reserves established for white pine in Algonquin Park. These sites were also part of Canada's involvement in the International Biological Program.

Several of the white-pine reserves in Algonquin fit the "old-age timber stand" category of the "Guidelines for wildlife policy", because they include very large old trees in areas that in some cases have never been logged. The site I will describe is an extreme example, because it was the worst I studied, but it provides a good illustration of some of the problems.

The area is known as the Weasel Lake White Pine Reserve, named for the lake shown in Figure 1. The incentive to establish the reserve came from ecologist Duncan McLulich, who surveyed Algonquin Park in the late 1960s looking for old stands of very large pine. He suggested a site northeast of the lake, and I plotted it on a map, using the latitude and longitude data that he provided. Now, the site south of the lake as shown on Figure 2 was studied by a park naturalist, who used McLulich's description to establish boundaries, using axe blazes on trees. As you can see, he was quite a bit off on the location of the proposed reserve. The other two sites on Figure 2 are ones which I plotted, using two different maps of the reserve system provided by the Ontario Ministry of Natural Resources. The site shown in solid lines on Figure 3 is the reserve as marked on the ground, using the standard metal markers to identify reserve boundaries. The site bears no resemblance to the one originally suggested for protection. I found white pine to be only a minor component of what was essentially a poplar-birch forest, while the original proposal was described as a mature white and red pine stand, including some very large old trees.

On Figure 3, you will notice a logging road through the reserve. The park policy specifically prohibits such development.

It is a bit late now to rectify the problems for this reserve, because all the area outside the official site has now been strip clear-cut (see the hatched area in Figure 4).

Setting aside nature reserves or wildlife preserves is an important means of maintaining habitat. There is a growing number of protected areas programs in Canada, but the example I showed you raises questions about their effectiveness in putting concepts on the ground.

FIGURE 2 Weasel Lake, various sites identified later

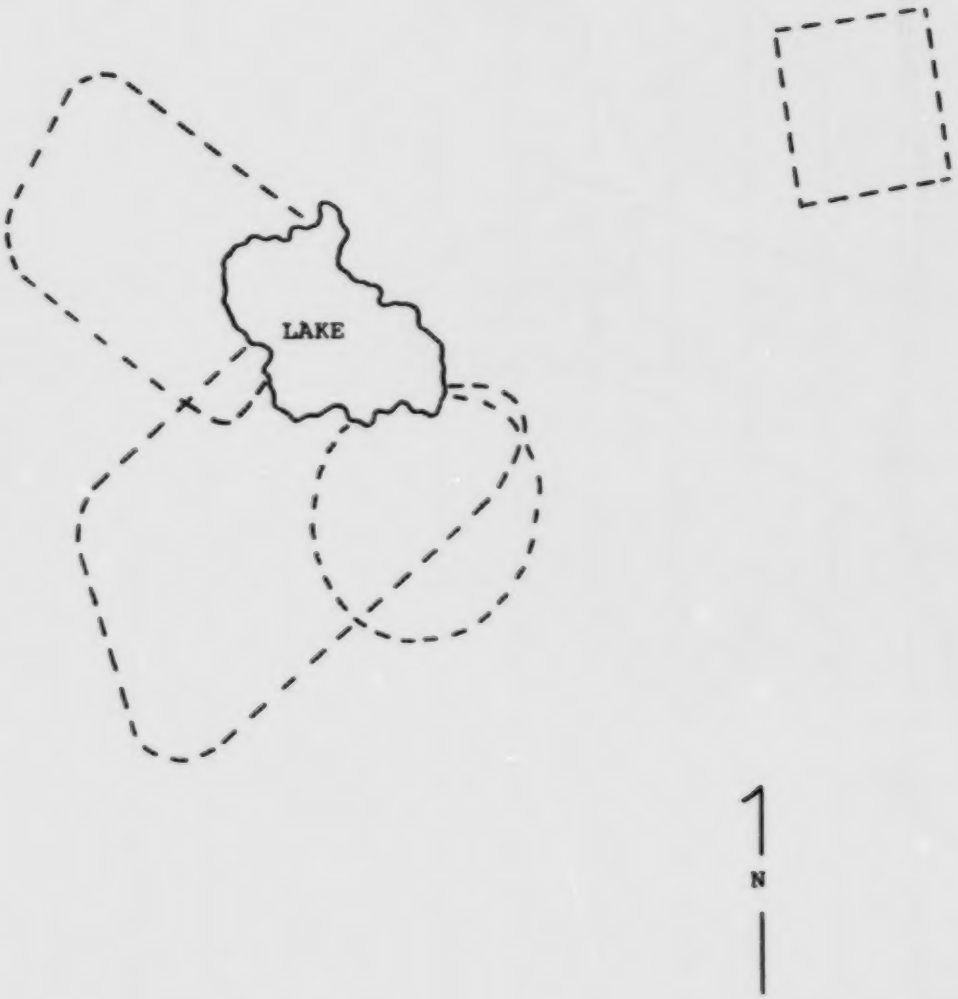


FIGURE 3 Weasel Lake, site as shown by metal markers

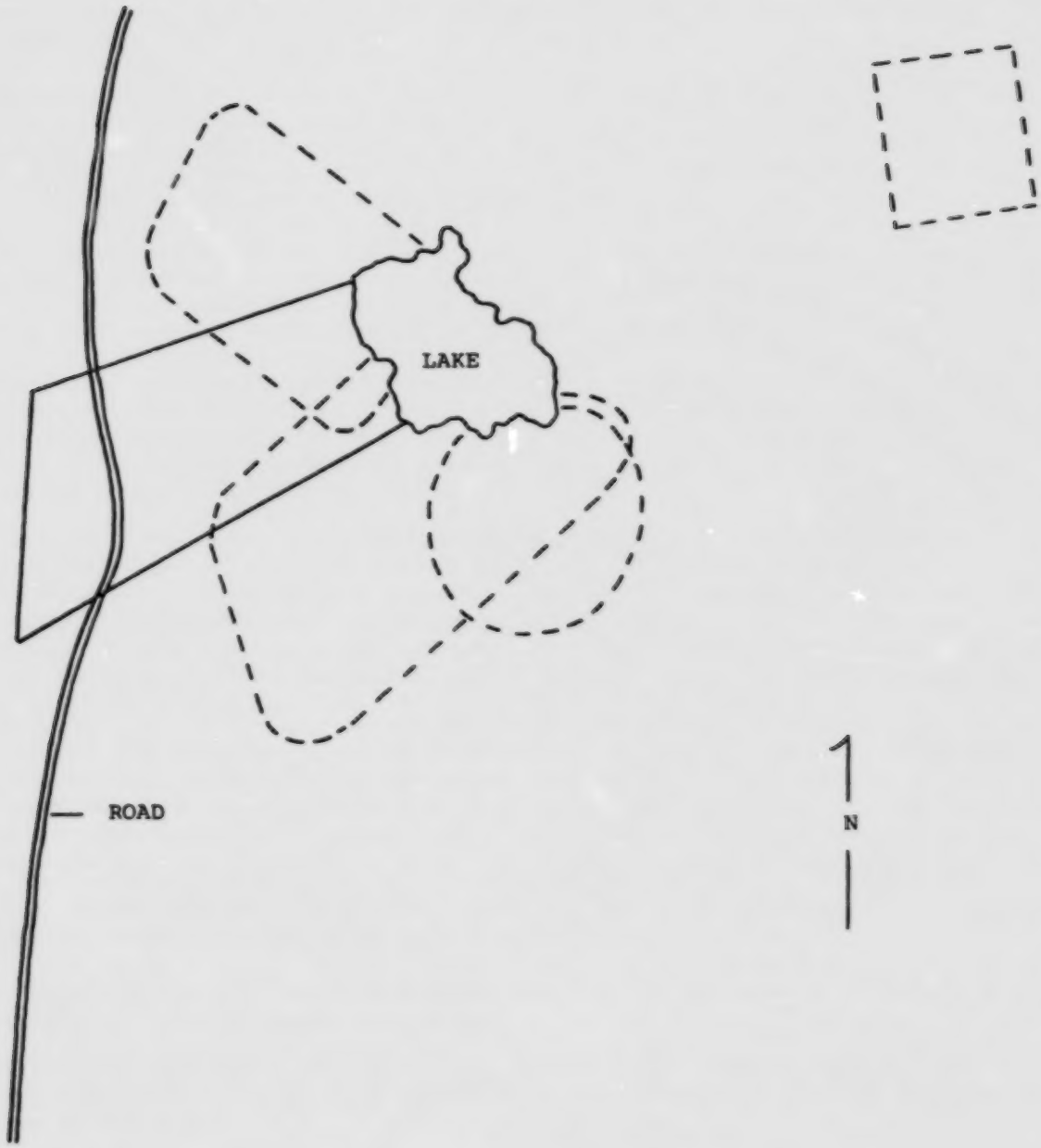
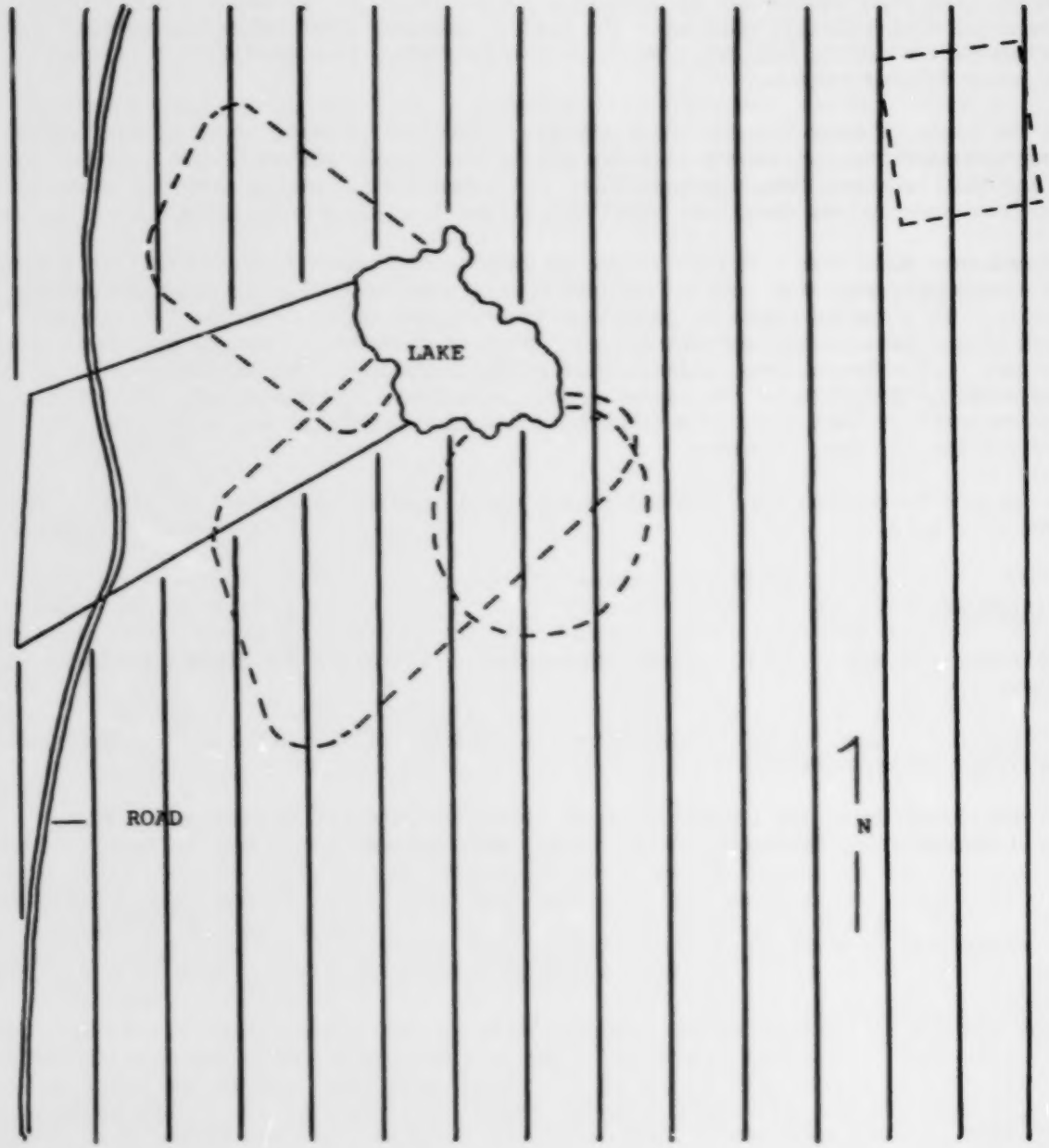


FIGURE 4 Weasel Lake, clear-cut area outside the official site



Some of the problem is a lack of money assigned to the job, but many of the boundary errors you saw could have been avoided by better communication between those who identify natural features to protect and those who mark reserve boundaries. A good air-photo interpreter would have helped a great deal.

If site management aims at protection, and a logging road is inconsistent with policy, the road should not go through a nature reserve. We who are most concerned with wildlife must take the lead in ensuring that other land-users accommodate wildlife habitat. Wildlife managers must show that forest renewal includes habitat renewal.

In the light of many factors which threaten wildlife habitat, it is clear that a comprehensive and consistent wildlife policy must apply across Canada. The guidelines that have now been approved show some commitment, but the watering down you have seen raises questions about the strength of this commitment.

Governments must take specific action to comply with the national "wildlife policy". To ensure progress, the actions of governments must be publicly reviewed periodically. This review could be published as a regular audit or "report-card" on each of the provincial, territorial, and federal governments to see how they measure up to the national standards of wildlife policy. The material could be presented in the form of charts and graphs to allow ready comparison of different governments' performances. It might be published in a magazine, a special publication, or news releases.

The Nature Federation will work on this project, and we would be very pleased to have your help.

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Wildlife management (session 3)
Public involvement - Present and future

THE LANDOWNER-RANCHER

E. Thiessen
Director,
Alberta Urban Municipalities Association

I came here representing the Alberta Urban Muncipalities Association, which includes the villages, towns, and cities. Our board is made up of two members from Calgary, two from Edmonton, two from the cities at large, three from the towns, and three from the villages. However, I am going to discuss the farming end of the question.

I have been in the beef industry for some 30 years in various brackets as purebred breeder, grader, and what-have you. I am really what they call a part-time/full-time. I keep cattle full-time, but I only ranch them part-time, as I live in the village of Coutts. Part of the time they are on their own. Our ranch is 16 km east of Milk River on the Verdigris Coulee, and covers about 800 ha. We run 60 to 70 cows--we call it a "cow/calf operation". We keep the cows in the winter, calve them out in the spring, sell the calves in the fall, and keep the odd replacement.

Economics of ranching

The truth of the matter is that the cattle industry has really not kept up, and basically a lot of this was by choice. We have used a lot of the old methods, the same as our grandfathers did, and have bought everything retail and sold everything wholesale.

Ranching is usually aligned with just about everybody else. It is a sideline for farming, or a form of moonlighting for nearly every walk of life. If a doctor has money, he gets into pedigrees, into this or that, or into exotic breeds.

Just to show you how our prices have not kept up. In 1951, when we sold our steer calves in the fall, we got between 36 cents and 38 cents. In 1982 we got between 72 cents and 78 cents. So, in 31 years we have doubled our price. It is a poor way to stay in business, but we are still there. Meanwhile, for example, regular barbed wire, for a quarter-mile roll, has gone from less than $10 to $50 or $55; posts from 30 cents to $2.10 each.

Well, the first question you come up with is, "Why are you there? If you are so cotton-picking smart, why don't you get out?" It is not that easy. This is a way of life, and it gets into your blood. It is a kind of wildlife, all on its own, where cattle are part of it: we have the animals, birds, and you-name-it, and it just amazes you what that natural grass, that bald-headed prairie, will produce.

The first thing you need in order to compete with the foreign producers like New Zealand and Australia is that something has to be cheap. It is either cheap grass, or cheap labour like your family or yourself, or a surplus of grain that

makes it cheaper, or an abundance of hay. As long as that is available, we will have reasonably-priced beef.

Now, if everyone claims the God-given right to all public and private land, for whatever reason, the cattle industry will be out-voted and will have to move over. We are going to lose our leases, we are going to lose even deeded land and its privileges. The end result of this is going to be, the way I see it, that the cattle business is going to go like a lot of things. We are going to get marketing boards. Now, marketing boards mean controlled production. Animals are going to be raised, like they are in other countries, in confinement--like dairy herds. Cattle will be raised and managed similarly to broilers, turkeys, and hogs; and like our eggs, dairy products, and milk, strictly on the quota basis.

The people who are going to be in this cattle business are going to be more powerful, and the government will have to pay more attention to them, and will impose a lot of restrictions. When I talk about restrictions, I am talking about imports from foreign countries. The bottom line is higher priced beef for the housewife; and then Statistics Canada will say that the cost of living went up and agricultural people are to blame.

Living with wildlife

This does not have to happen. The guy who owns or manages the land needs a little respect. Nobody will take care of that leased or deeded land any cheaper or any better than the cowboy will. For example, some of the good things wildlife managers, ranchers, and farmers are doing (you will see them in a lot of places) include leaving a good stand of grass between a pasture fence and a ploughed field. It is ideal for bird cover, especially once you take the crop off; in the summer-fallow, there is always that kind of wide run in there. You have also seen that they develop a fair share of shelter-belts; some promoted with wooden fences, others with trees or whatever is available. They will also go to the extent of building small dug-outs in coulees to catch the run off. Granted, these help the cows, but they help everything else too.

Another important thing is to avoid spraying for weeds, grasshoppers, etc., with poisons at any time in the nesting area. The numbers of pheasants that have been raised and released in the agricultural areas have increased (I am talking about southern Alberta, which I am most familiar with), and this is quite an industry.

Now, these are just a few things that have been done. In a lot of cases, I think there would be a lot more done if there was a little help (a lot of times financial, a lot of times just physical). Of course, we are golden boys (but not quite). There is a field all on its own, which I am not in favour of in any farming or ranching, and that is the use of poisons. I am talking about gopher poisons, coyote bait, and crow/magpie traps. As far as I am concerned, they are a no-no. I just cannot see that they have to be a necessity.

Getting to a by-product of ranching, there is more room out there than just for the cows, and for the odd guy to go galloping up and down the road. You take the hunting or trapping of a certain amount of skin animals. We have them in the south; for example, coyote, badger, skunk, fox, weasel, and a few muskrats. They are of importance, if for nothing more than to look at. A few out there are being caught, but it is a small sideline. We also have a fair share of deer

(mule deer and white-tail) and antelope, and of pheasants, Hungarian Partridge, grouse, ducks, and geese. These can all be increased by good ranch management and by getting along with the person who has the land. I feel that if the sports-people do their part, and the ranchers do theirs, we are in for a good time. Because, as for myself, I have had very little bad experience; no more than I have had in any other field.

There is always the topic of trespassing. I feel that we should all have the right to walk on designated roads or paths. I would like to present that to the public. I do not think that it only pertains to us that have lots of land, but to anybody who has property with a given path. If a given path happens to go from your front-yard, around your house, and past the garbage barrel in the back, I think that is a designated path. As far as I am concerned, if I want to watch a bird in your yard, I should have as much right in a city, town or village to walk through there, for a purpose, as you have on my ranch. When we get that idea across, I think the trespass law, as far as walking is concerned, will be solved.

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SUBSISTENCE HUNTING

P. Kelly
Regional Vice-Chief for Ontario,
Assembly of First Nations

I certainly welcome the opportunity to speak to this group, the Federal-Provincial Wildlife Conference. I would like, just briefly, to point out where I come from; it is called "Treaty 3 area". Treaty 3 was signed in 1873. It includes 142 450 km^2 and about 25 Indian reserves, most covering about 40 km^2 each.

A company has been given the timber limits in our area for lumber and pulpwood. Treaty 3 guarantees hunting, trapping, and fishing rights to Indian people. But, as you know, for us hunters, trappers, and fishermen, when the timber is removed from an area, not too many deer, moose, or bear are going to survive there. The whole area is cut over, and we have this 40 km^2 where approximately 400 people must make a living out of hunting, trapping, and fishing. That is the situation that I face in my own particular reserve.

As the Chairman pointed out, I have gone away to the cities and to university, but I have made a conscious decision to go back to the reserve and live there. I make my home in the reserve.

The second thing that I want to point out is the legal framework that we are probably going to be talking about. Section 91, particularly Sub-section 91.24, of the British North America Act says that "Indians and lands reserved for Indians" are what gave the mandate to the federal government to create, under a separate act, the Department of Indian Affairs, which governs activities on the Indian reserves. As a result of that, the provinces do not see it as their mandate to deal with Indian people at the reserve level, because of the mandate given under Section 91 and other sections of the BNA Act.

With that kind of background, we face a problem in northwestern Ontario, particularly on my reserve. The Atomic Energy Commission is test-drilling, with a possibility of burying in our back-yard the nuclear wastes from plants around the Toronto area. Now, where I come from, when people retire and have made their fortunes, they usually retire to British Columbia or Florida, but that is not the case with the Indian people. Indian people will always stay, probably on their own reserve. I will probably die on my reserve even if I am 90 years old. I will not die in British Columbia. The point I am making is that it is not possible, and it has not been our experience with the provincial governments, to allocate further Indian reserves once a particular area has been contaminated. So, once it is contaminated for half a million to three-quarters of a million years, that land is gone for that much time. Needless to say, no one is going to survive there. So we have a problem of jurisdictional areas, and with that kind of background, maybe you can appreciate some of the problems that I am going to be talking about.

The Assembly

Briefly, I would like to give you an explanation of what the Assembly of First Nations is. It used to be that, years ago, Indian organizations by and large were centred in cities, and purported to represent Indian people on the reserves. But these organizations made one mistake. They said: "We will hold a Chiefs' conferences." So they held it, and the Chiefs said: "If the organizations are going to represent us, we are going to control these organizations." Then came the eventual turning around of the organizations.

Now the Assembly of First Nations is an organization made up of all of the Chiefs across Canada. In Ontario we have 120 Chiefs. I was elected by the Chiefs of Ontario to represent them at the Assembly and, because I speak for them, I like at all times to keep in touch with the Chiefs. They are the ones who are experiencing problems having to do with fisheries, trapping, and hunting. They are the ones who run into problems with others, as opposed to the people who live in the cities and make decisions using bureaucratic jargon. So now the Chiefs (particularly in Ontario) control the Indian organizations.

While my main responsibility is to represent the Chiefs of Ontario, I also have the Indian Law portfolio. To give you an example of what Indian Law is all about, on the death of an Indian, the disposition of personal property is the responsibility of the Elders, who distribute it among the other band members. This is a practice that has been going on for many centuries.

Also, the fundamental basis of our livelihood, of our culture, is our relationship with the Great Spirit. We have a religion, and I am at present undergoing initiations in the Kenora area. I think that this kind of instruction that I am receiving sheds a different light on conservation from what I have seen to the present time. So, when I go back to the aboriginal rights, aboriginal title, and treaty rights of Indian people, I have to keep in mind that I am talking about a fundamental law of a country which has its roots in the Royal Proclamation. The rights of Indian people were recognized under the Royal Proclamation.

The other thing that I should say is that we do not see ourselves as just another users' group, nor are we just simply a special interest group by virtue of the Royal Proclamation.

There has been much conflict in recent years with those who argue against our rights, and try to bring down these rights by calling us a mere minority group. We are not a minority group. Treaties were signed with the Indian people. As the First Ministers' Conference on the Constitution (on aboriginal rights) demonstated, and as the Canada Act states, our aboriginal treaty rights are "recognized and affirmed". That is in Section 35 of the Canada Act.

Our rights have been recognized in non-Indian laws since at least 1763 in the Royal Proclamation that I alluded to. Our rights, however, do not derive from non-Indian law and its recognition. The rights of the First Nations exist because the Creator put us here. We believe that we are the trustees of this land, the waters, and all living things indigenous to this country.

In saying this, I know there is much that we share, my people as the First Nation and you as the policy and law makers. We both hold conservation as our paramount concern. Yet, to date, we have not found ways of working together. For the hope of our future, this has got to work.

Provincial actions

In preparing for this speech, I did a quick survey across Canada with the chiefs. Over and over again it was the same old story. The provincial governments have no regard for our traditional way of life. People are getting arrested for hunting and fishing according to the treaty, or in non-treaty areas for carrying out these activities in traditional ways.

In Saskatchewan, without any prior consultation by successive governments, the province amended the Provincial Wildlife Act. The result is that many Indian hunters are now being charged under a new section limiting access to unposted private lands. Yet traditional hunting areas are reserves for status Indians under the terms of Treaties 4 and 6. However, provincial game management units and zones have been developed to the point where the First Nations people literally have no traditional hunting grounds left. Court action and huge legal fees will follow.

In British Columbia, the federal Department of Fisheries is trying to coerce the Indian people fishing for salmon in traditional areas, and by traditional means, to join a salmon lottery and thereby limit their catch. On the Fraser River, where Indian communities line the banks, federal fisheries officers recently completed an operation whereby undercover agents went on the reserves to buy fish. In a situation where many people had recently been denied welfare, some sold fish for the first time and were subsequently charged.

An interesting and insidious side-note to this is that the Department of Fisheries then sold these same fish to a local company at market value, thereupon gaining several dollars per fish, which went into bank-rolling further undercover operations.

In British Columbia, also, the provincial government has refused to recognize any special hunting and fishing rights for First Nations people, as there are no treaties in that province. However, the province did outline a policy in 1981, under which Indian people would be allowed to hunt for food. Despite this, Indian people are still being charged, and lawyers for Indian hunters have had to argue in court that the hunt/kill is for subsistence. This causes hardship and cost to the hunter, and an additional tax burden, needless to say.

Most recently, in Quebec, the minister responsible for hunting and fishing announced that, despite being in negotiation with the Conseil Attikomek-Montagnais (CAM) on their aboriginal rights in that area, he would never grant exclusive rights to five salmon rivers. He then proceeded to break a 1977 agreement with CAM and relet salmon licences to five private camps on one of those rivers, and announced intentions of opening up more. If anyone doubts the severity with which this Quebec government can deal with Indian fishermen, they should just have a look at the Restigouche situation of 1981.

With this background, I believe that there is still a possibility, a hope, of agreement and resolution. The way is through Indian self-government and recognition by other governments in Canada that the Indian First Nations have jurisdiction over our people, lands (including waters), and resources. We must participate in management decision-making. There must be recognition that our rights are beyond the authority of federal or provincial laws to curtail them. Yet, with the involvement of the First Nations, we can voluntarily agree to work with you in developing the research, policies, plans, and laws required to ensure that the animals, birds, and fish of the country endure.

Let me outline a few examples of how Indian government is working.

Local initiatives by First Nations

Band Councils are exercising our right to self-government. We have never surrendered our sovereignty and our ability to govern our people, land, and resources. More and more, Band Councils are exercising our right by passing laws, developing conservation codes, and codifying traditional and customary laws of our people.

For example, the Brokenhead Reserve in Manitoba has developed a conservation code to govern reserve wildlife. You may be surprised to see much there in common with provincial laws. It is now being discussed by the band members, and traditional law is being intertwined so that the end result will be a law which can stand the test of time. The Brokenhead conservation laws will lean on the traditions of the Elders, but will address the issues of today with increased tourism, environmental contamination, and other problems.

In our own areas, you will find bands passing by-laws under the Indian Act, in order to bring the presently used powers of enforcement into their laws. Other Band Councils will be passing laws under their own jurisdictions, and considering their own tribal courts as a mode of enforcement. These Indian government structures are evolving and we welcome your interest, your questions, and your support in developing our conservation codes, the enforcement of customary law, and the development of Indian government.

As a note of interest, the Constitutional Accord, signed by the First Ministers, the First Nations, the Inuit, and the Métis in March, calls for an on-going process of at least three more First Ministers' meetings dealing with aboriginal rights. Indian government is a prominent item on this agenda.

As well, a House of Commons committee is to report in October 1983 on their investigation of Indian self-government. That report is just in the process of being prepared.

Land-claims settlements

Several of you are already involved in various parts of the country in negotiating land-claims settlements. Many of these settlements are in the Far North and contain several sections on wildlife and land management. The First Nations have long recognized that wildlife and land management must be integrally combined and cannot be subjected to competing jurisdictions, as is often the case under present Canadian law and policies.

In order to practice our traditional way of life, and hold a "buffer zone" around our communities to ensure the continuation of our traditions, the concept of zoning for exclusive use has arisen. These settlement agreements are being negotiated on the basis of aboriginal rights that have never been extinguished. Non-Indian law requires that an accommodation is made with First Nations people of that area.

Beginning with the James Bay Agreement of 1975, the concept of zoning land and waters for the First Nations' use became officially recognized. It will continue to be a feature of claims settlements in the future.

However, other agreements, such as the Northern Manitoba Flood Agreement, have proved it difficult to translate words into action. In Manitoba, the agreement's Wildlife Advisory and Planning Board has an uncertain role vis-à-vis government, and local concerns needing to be ironed out are taking precedence over long-term planning.

More than goodwill is required to translate words of agreements into action. One wonders at the resources allocated to these agreements, especially in light of the evidence presented by the Grand Council of the Crees of James Bay regarding the implementation of their agreement. Certainly, when Indian people are expected to sit at the same table and plan conservation measures with the same people who earlier were active in suppressing our rights, it is evident that much work has to be done.

It is recommended that adequate resources be made available to First Nations' representatives in any such co-management agreements, such as expert advice, training, consultation funds for community and Elders' meetings, and other resources.

Finally, there are several areas in which we can co-operate at this high level of planning. Let me outline a few.

Wildlife management, wildlife agreements, and co-management

In other parts of Canada, concern over a dwindling resource, or conflict between so-called users' groups, or conflict between First Nations people and provincial governments have led to working out agreements on the management of wildlife. With the stated shared objective of conservation, First Nations and other governments are negotiating specific documents, such as the Ontario Fishing Agreement, which calls for the recognition of Indian harvest fishing for food, the involvement of Indian people in the research and development of policy and regulations, the establishment of an independent biologist to undertake research and an umpire to settle disputes, and the inclusion of 20 Indian conservation officers with the equivalent powers to fisheries officers.

It should be noted that, although the provincial government and the leaders of the Indian organizations signed this Ontario Fishing Agreement in December 1982, the federal government is still trying to decide what to do. It is looking for every excuse to delay the inevitable. How can any Canadian be satisfied with the conservation of the fishery in this country if these federal bureaucrats who organize this stall are in command?

Agreements negotiated between governments and Indian governments will soon have the same status as treaties. Under the accord signed by the First Ministers and the First Nations in March 1983, and already ratified by our Assembly, a constitutional amendment will give such agreements the status of treaties under Section 35 of the Canada Act (constitution act) of 1982.

These agreements across Canada spell out the terms of shared management of resources. In many cases, such as the Banks Island Muskox and Caribou Management Agreement, long-term plans are detailed to combine scientific research with the involvement of traditional hunters in planning and policy development.

Environmental protection

Our people are the first to suffer the consequencesof environmental contamination, such as mercury poisoning, acid rain, and the present threat of nuclear wastes; yet the Indian people are the last to be involved.

As the caretakers of this land, First Nations Elders and leaders are concerned that we be involved in research, policy, and law development, and in any lobby efforts to clean up and protect this land.

Conservation vs. preservation

We share the concern of the Canadian Wildlife Federation in promoting the protection, conservation, and effective management of our wildlife resources. Our traditions depend upon our wise and respectful use of the land and of the wildlife. Those who argue for preserving the wilderness without any impact have no understanding of the balance of nature.

Thus, at our annual Assembly of First Nations in May 1983, we passed a resolution to establish a strong political lobby internationally to combat this preservationist campaign. The recent conference on the Convention on International Trade in Endangered Species (CITES), held in Botswana, considered a resolution to ban all leg-hold traps throughout the world. There is a definite movement to stop the taking of wildlife for any purposes, including trapping, fishing, and hunting by aboriginal people. Our traditions must be protected.

Thus, we look for co-operative support in finding an alternative to the leg-hold trap, and a lobby against such a ban until an alternative method has been found. For our people to return to the dead-fall or snaring modes of hunting would be economically unfeasible. We wish to research and experiment with new methods, while retaining the old to ensure our livelihood for the present.

Promotion of co-management

With increased assertion of our rights, First Nations governments will be more in the forefront of developing conservation schemes and land-use plans that will ensure conservation of the species and protection of our rights.

We invite the federal, provincial, and territorial governments to sit down with us and discuss our plans. In some cases, these talks may lead to increased understanding and co-operation; in others, formal agreements or protocols will follow. Basic to these discussions is the guiding principle that First Nations people must be involved in all aspects of management, from research and planning to policy and law planning. An advisory role for Indian people is simply just not enough.

Promote co-operation and oppose the backlash

Anyone familiar with the Ontario Fishing Agreement and the tripartite negotiations that led to a draft agreement in December 1982, will also be aware of the huge backlash, mainly from northern Ontario's tourist operators, who feared for their

livelihood. A lot of these people are not even from Canada. For example, where I live in Lake-of-the Woods, a lot of fishermen come in from the American side; the boundary is there, but there is no barrier. These people take fish, not six per person according to the Ontario regulations, but probably as many as 50, 75, maybe 100 per person. There is no way that the conservation officers can control these people because their boats are equipped with sonar, radar, CBs, the whole works. And these are the people that we have to be dealing with.

Without even studying the agreement or considering the ramifications in a positive light, the infamous Kenora "rednecks" took to the press and lambasted the provincial Minister of Natural Resources and anyone connected with this agreement.

The elements are the same in any such backlash. First, the detractors derogate our rights by saying that Indian people are the taxpayers' burden, enjoying special privileges. Then they use scare tactics, stating categorically that their interests are being damaged. Finally, "reverse discrimination" is hollered.

We ask you to join with us in avoiding any fanning of these flames of hatred. Outline the facts of Indian life and any such agreements. Outline the benefits to all the citizens of your area. Certainly our common goal of conservation and our seeking to join the traditional and scientific knowledge bases are laudable and workable. The aboriginal treaty rights of the First Nations of Canada exist and must be recognized. That is the law of the land.

In closing, I would like to emphasize that we have a long road to travel in achieving our goals. While we have shared more than a century of conflict, we can move forward in an atmosphere of respect if we recognize our common commitment to this land.

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SPORTSMAN AND SPORTSWOMAN

D. Pattinson
Canadian Wildlife Federation

I suppose it would do some good to try to define the particular persons they call sportsman and sportswoman. Who are they? What are they? Are they also conservationists? Are they preservationists? Maybe they tend to be alarmists? Most assuredly they are, at times, all of these. Attend one of the local club or branch meetings and listen to their concerns. Go to their provincial conventions and you will see them pass resolution after resolution. Mostly they ask and volunteer to take less: close the season in this zone and for that species, or reduce the bag limits, or whatever; reduce the time that can be spent hunting or fishing. That is the old-time sports club theme. Manipulate the bag limits and the season dates. We will take less.

But it is fair to warn you that times are changing and some issues have already been resolved by change. Sportspeople will, under certain circumstances, still accept less. They will, under certain circumstances, still volunteer to pay more for licence fees--provided, of course, that those monies designated go to the management and enhancement of the resource.

Growth of an organization

I have been asked to address some of the issues that affect the Saskatchewan Wildlife Federation (SWF). I suppose it is because I am a past-president of that prestigious conservation organization. But, before I go into those problems that, in finding solutions, have made our federation much stronger, I want to remind you of the different roles that we and you play. We are the consumer and the shareholder, and you are the supplier. We say: "Get your act in place and get it on the table". These are pretty tough words coming from an organization that has nothing much to offer except the sheer weight of numbers in the political game of vote-counting. Let me explain to you how we (the SWF) got by, and how we evolved into the federation that we are today, with 34 000 members and still growing. This involvement, or growing-up if you will, is of recent times.

In 1968, the SWF passed a resolution calling for an impost on licence fees to establish a fund for the purchase of endangered or critical wildlife habitat lands. The government of the day accepted the resolution, installed the impost, increased the licence fees, and for the next 2 years spent the money on migratory bird crop depredation. A court action was started against the government by the SWF to restore the money and have it put into a designated fund. But, before this could go to court, an election was called and the party in power was turfed out. The new government settled out of court. The fund was established and, as a result, our wildlife managers now have at least some cash to purchase wildlife lands. This is called "putting your money where your mouth is".

The SWF then went through a period of time where, at our annual conventions, we went from active departmental involvement by fisheries and wildlife people to a

point where we informed the government that we did not want any representatives at our annual convention. We would tell them what was wrong with their management plan. We would tell them what was wrong with the operation of their department. We would tell it to the minister. But, in the meantime, we would just stand back and throw rocks. Well, we grew up. Both sides limped in carrying the olive branch and we have worked well ever since.

We, the SWF, made a deal with the government, the politicians, and the ministers that our president and executive would only deal with the government. The opposition approached us about a meeting and we told them, "No problem. Get to be the government and then come back". The SWF executive was to deal only with those government ministers involved in the issue, and the dialogue went something like this: "Minister, have your department do the things we like and we will praise you in public. If you do those things we like, and you find yourself in difficulty, then we will run interference for you, protect you, and praise you. But, Minister, do those things that we do not like and we will whisper in your ear to change your ways. If you persist, then we must also appeal to our branches and members for support." You will recall that the SWF executive would deal only with the government, but every branch would deal with their own MLAs, regardless of political affiliation. We had a problem, and the SWF, the Wildlife Branch, the minister, and the government together solved it.

This went on for some time until finally the Department of Agriculture raised its head. In 1975, the government announced the "Grazing lease improvement program", a program to clear some 334 000 ha for pastureland. The SWF objected, but Agriculture insisted that the project proceed. Even the cattlemen were not impressed or enthused. Cattle prices were depressed, and the last thing they needed was an additional supply of beef on the market. We, the SWF, brought in a consulting firm for an independent appraisal and assessment of the program, and its potential hazard to winter habitat. Agriculture, in its embarrassment, and with an unbelievable change of heart, transferred $250 000 to the Wildlife Branch to hire field staff for a biological study. An upshot of this was the inventory of critical wildlife habitat on all provincial Crown land subject to exploitation by Agriculture. All Crown land is now managed under this agreement. Before any clearing takes place, wildlife managers have their input. Our role is to monitor the activities of the departments and mark the report cards, so to speak.

Discussing problems

Some years ago, members or staff of our provincial government wildlife departments were reluctant to discuss problems with us. Ministers, deputy ministers, and directors had a perpetual worry about being struck in the back. Times have changed. Co-operation really started with the biologists. Their desire to see the resource kept safe often overshadows their fear of being in personal conflict, or even their fear of losing their jobs. But, after a few occasions, where their problem was one of a political nature and we were successful in fixing it up, we then had their confidence, and still have it today. Sometimes those young biologists have risen to positions of very high responsibility.

We have matured, both of us--the wildlife and fisheries departments and the NGOs. A great many times we now sit down and discuss the problems at hand. The minister, the representatives of the SWF, and the wildlife managers not only discuss the problem and the solution, but the political ramifications and any action

that might be taken. Over the past few years, all the participants are comfortable with one another. This is called "having common goals, or a single purpose". If everyone is involved, and all the players have that spirit of co-operation, then there are no losers. Progress is when everyone pushes in the same direction at the same time.

Two years ago, the government of the day introduced Bill 59 to enable it to sell Crown land. We have never objected to private ownership of farmland, but we did object to the sale of lands that had become critical wildlife habitat. Strangely enough, while the bill was passed, little or no land changed hands. An election was called and the Land Bill became, in some constituencies, a hot political issue. At any rate, the government changed. Nothing further took place with the land sales until 2 months ago. The new government called us in then and asked how they could sell the land without getting into difficulty with us. We laid down a few guidelines:

(1) wildlife biologists would have a veto on any land with wildlife value,

(2) land of a fragile nature would not be sold,

(3) the SWF would have access to the wildlife files of critical wildlife lands,

(4) Ducks Unlimited would be allowed to designate wetland potential on all Crown land, and

(5) the SWF would have a caveat on all lands containing wildlife habitat.

The government accepted all of these guidelines.

One of the questions put to me is, "Where do sportspeople fit into the system?". That is a question that now would be better addressed by the history of their organizations. Times are changing and have changed. Sportsmen and sportswomen could change the system to suit themselves. How they changed it might not entirely suit the government wildlife agencies.

To those government wildlife people who do not take the time to inform and educate our members on the programs they have in place, or are in the process of developing--watch out! Our groups are not professional wildlife managers. Although they probably have some of these people as members, they, if uninformed, might strike with political force and the results, though unintentional, could be very counterproductive.

I have had in the past, in Saskatchewan, much experience in changing the system--and all for the better, because our provincial wildlife department people provided us with the direction, the information, and the education to assist in keeping safe and enhancing Saskatchewan's resources. So, if you are going over SWF history, the solutions they have found for past problems now prove to be the answer for present problems. We have had the organization, the cash, the inventory, and an excellent wildlife staff with the spirit of co-operation to carry on the programs.

As the co-operation on programs and projects increased, and more positive results were apparent, sportsmen and sportswomen, naturalists, conservationists, all joined our organization to add to its expertise, to give it strength in numbers

and direction of purpose. We could not be as effective without the co-operation between the professional wildlife and fishery managers. Nor could they be without us. All of the chances of success in the wise management of the resources hinge on the co-operation between you, as professional wildlife managers, and sportspeople's organizations and some of the NGOs.

If you do not have co-operation, we had better get together to cultivate it. A challenge I throw out to you is like that of your keynote speaker: "Lead, follow, or get out of the way".

Wildlife management (session 3)
Public involvement - Present and future

SUMMARY OF DISCUSSION

N.R. Jotham (Canadian Federation of Humane Societies) said that he was pleased to hear Chief Kelly's comment that the First Nations would be willing to implement humane trapping systems as they "come on stream". It was very encouraging and a very positive position to take. He thought that there were already more humane systems available than the traditional systems of trapping. He asked Chief Kelly what were some of the ways he could see of helping to implement those more humane systems of trapping in the near future.

Chief P. Kelly (Assembly of First Nations) said that he had asked the Crown Attorney of Ontario in Kenora to arrange a meeting with the Ministry of Natural Resources, so that conservation officers could explain to them what certain regulations meant, and they in turn would tell the officers their interpretation of the regulations; if there was a misunderstanding, it could be ironed out. There never was a meeting, although the Indians had requested it on two occasions as far back as 1973. He said that there had to be more dialogue with the Ministry of Natural Resources, i.e., so that they knew the citizen's powers of arrest, or were told how they could be instrumental in identifying or bringing to arrest offenders against game laws. He also pointed out that there should be courses given to Indian guides as to the expectations of provincial game laws; workshops with the Ministry of Natural Resources, so that there was a liaison with conservation officers.

Mr. Jotham asked Chief Kelly if he would be interested in communicating to native trappers that it was important to get involved in trappers' associations and participate in various trappers' workshops, etc. He thought that was an important aspect of changing over a technology.

Chief Kelly replied that he belonged to the Canadian Civil Liberties Association, and respected and defended the right of every Canadian to speak out in public regardless of their views. He felt that a lot more Indian people should examine the possibility of participating in workshops and in meetings with the Canadian Wildlife Federation, because there was a lot to be mutually gained. He wanted to put that on record because "... I think it is time, for our part, that we form groups with other people who have a common interest".

The Hon. R.W. Nerysoo (Minister of Energy and Resource Development, NWT) said that it was all well and good for people to suggest that the types of traps being developed suited the situation in the South, but the reality of the North was very different. Native people should become educated about particular trapping methods, but humane societies had to become aware of the different circumstances people lived under. It was most important that, while people were suggesting that the native people ought to become educated in new methods of trapping, perhaps they should look seriously at what the historical trapping methods were in this country; that something might be learned from them. He suggested that it was a matter of trying to educate the trappers and, at the same time, educate the humane societies. The Northwest Territories had tested many traps developed by the humane societies and other trappers, and they certainly had not worked as well as the present leg-hold trap. He assured the conference

that the Northwest Territories would continue to test any trapping methods made available to them.

C.R. Surrendi (independent consultant, Alberta) warned Mr. Sheehy not to get carried too high over a national wildlife policy before it received some sort of concurrence from cabinet ministers, and the federal government in particular. He believed that the policy would remain at the mercy of the next cabinet minister up the hierarchy, who might make a casual decision some afternoon that might neutralize half the potential policy operations. He said that the job was far from over.

Referring to Mr. Sheehy's comments regarding protection of climax forest, he suggested that "protectionist areas" were not the way to go. He had seen four parks in Alberta with over-mature forest falling down; with no chance of any kind of salvage for logging operations because of bark-beetle destruction and trees falling over; also a potential for enormous fires, and fear in the eyes of national parks people in case a fire got started and burnt a town out. Because nobody had logged out those areas or let them burn, there was virtual elimination of mountain-sheep habitat, and in some parks starving elk. He noted that there was, in his opinion, a conscious or unconscious effort on the part of the parks, due to their policy, to opt for the protection of trees over the protection of animals. He disliked this intensely, and thought that something should be done about it; that there were not many options left.

He told Chief Kelly that he was a hunter, and that certainly nobody in the room was not a descendant from a long line of hunters because, if their ancestors were not good hunters, they would not be there. He warned Chief Kelly that if he lost his right to hunt because of various anti-hunting pressure groups, the native people would shortly thereafter lose theirs. If native people were interested in maintaining hunting, and he was interested in maintaining it, they had better get together and work things out, because they both stood to lose a lot.

G. Sheehy (Canadian Nature Federation) said that the important place to implement the national "Wildlife policy" was through the provinces (excepting the territories) who were the landowners and land managers, and had the chief responsibility for wildlife and forest management. He said: "If we have a good basic policy, it should apply across the country. Why use different techniques if they can be applied everywhere with some modifications?"

F. Paulette (Slave River Basin Coalition, NWT) said that he came to the conference to find out what kind of lobbying power it had. His concern was the Slave River project proposed by the Alberta government. He explained that he was a spokesperson for the Slave River Basin Coalition, which was in opposition to the dam. There were a lot of things that were being talked about--wildlife, hunting, trapping, and fishing--and the people who knew that best were the people who lived on the land and knew that way of life. He was concerned about the free-roaming herd of buffalo found in Wood Buffalo Park, which was being threatened by the dam. The ecology around Fort Smith was very delicate; the river valley was very sandy and there was little to withstand any kind of massive flooding in the area. He mentioned that birds would be affected by the dam, such as the Pelicans that nested in the Slave River basin, and the Whooping Crane; and also fish used the river for spawning.

He also referred to the community of Fort Fitzgerald, where the dam was threatening to flood "my ancestors who are buried there". Someone had mentioned that wood was more protected than animals, and he sometimes felt that animals were more protected than people. He stressed that these were things they had to be concerned with. He wanted this to be recognized, because the Alberta government was now in the process of diverting a lot of rivers. He warned that they could not play with nature without suffering the consequences. He cited the change in climate as an example. A lot of people said that they were hunters, but people who lived on the land knew the meaning of life and death because "...when you hunt, you can take an animal or you can let him live; it is your choice. We don't forget when we kill or trap something to make an offering to say thank you. Those are things that are traditional to us". He said he was addressing this issue so that "... you people can perhaps address your governments or the people that you deal with".

E. Kure (Alberta Fish and Game Association) told Mr. Paulette that he might be surprised to find how many people in the room shared his concern. He assured him that he had certainly made his input in this public participation session.

Mr. Sheehy said that his organization was very concerned about the Slave River project. He pointed out that they only had a small staff and could not do the kinds of environmental studies the government must do to justify this project. However, there was some breathing space, since the federal environmental assessment review process looked like taking years and years; so the final decision on the project might be some time away. The CNF had corresponded with the Slave River Coalition in both the Northwest Territories and Alberta, and he assured Mr. Paulette that there was no project they would take a stronger interest in. CNF tried to be objective, so he would not say it was a terrible eyesore or a terrible blight on the landscape at this time; but, if it was as bad as he suspected, CNF would give it every bit of bad press that they could. He said that he knew enough and had heard enough to raise questions about the need for the project; there was considerable evidence that there was going to be a surplus of electricity across the country. Alberta had tremendous hydro-electric potential that had not been realized, and he added: "...the Premier of Manitoba has publicly offered the Province of Alberta to export power, and he has chastised the government, publicly, for refusing to accept the offer". Mr. Sheehy invited all members of his federation to get involved as much as they could and help the CNF staff do what they could. They would be involved with the Slave River Coalition as much as possible.

Mr. Kure said that Mr. Sheehy was not alone in challenging the government on this question; that this had been done by others in this room.

R.J. Bouzan (Newfoundland/Labrador Wildlife Federation) asked Chief Kelly what he meant by saying that Indians were the caretakers of the land.

Chief Kelly replied that the question of being caretakers of the land stemmed from the concept of aboriginal title and aboriginal rights. He would like to see the aboriginal rights and the aboriginal title respected. He asked: "When you take away hunting, trapping, and fishing from the Indian people, what is left?" And answered: "Perhaps a redefinition of unemployment, employment, habilitation, or rehabilitation". All these things had to be redefined. He was not sure that the things he was saying would be supported by a lot of people in parliament right now, but a start had to be made somewhere. He spoke as a representative of the Chiefs of Ontario.

Chief Kelly thanked the conference for the opportunity to participate in it. He said that the questions were right to the point, although sometimes complex and difficult to answer. He commented: "Somebody told me that in coming here you are going to be feeling like Custer when he faced all those Indians over there. There's going to be a bunch of 'rednecks' there. I haven't see anybody like that.".

Update report

NATIONAL WILDLIFE WEEK

K.A. Brynaert
Executive Vice-president,
Canadian Wildlife Federation

The 1983 National Wildlife Week program was, from the perspective of the Canadian Wildlife Federation, one of the more successful in the past 10 or 12 years. This year's theme was "Wildlife management". The classroom education kit consisted of a 16-page, four-colour booklet, a complete teacher's lesson plan, and a poster announcing the Week. In addition, we included further information on acid rain appropriate for school use, which generated a tremendous response from teachers and children across the country. This package contained a colouring poster, a summary of the impact of acid rain in each province and territory, an overview of the Canadian situation, and a pamphlet summarizing acid-rain concerns. Also, since a new film,"Wild Goose Jack", was recently released commemorating Jack Miner, we included a flyer announcing the availability of the film, and CBC's showing of it in the spring of 1983.

Over 160 000 kits in both official languages were printed, with approximately 140 000 distributed to schools in co-operation with government wildlife agencies across Canada. This year, we again had national representation in the program, with all 10 provinces and the territories participating within their jurisdictions. We were particularly encouraged by the increased effort in the Province of Quebec.

Need for commitment

Although we are very pleased that all agencies took an active part in the 1983 program, we are apprehensive about the future, and the direction and attitude we seem to be encountering within some jurisdictions. Last year, I stated my concerns about comments from some provinces, such as "our success is our own worst enemy". At that time, I mentioned that this implied an intent to curtail effective promotion of the program, and indeed this now seems to be the case. Orders in some provinces have been cut in half; in others, entirely cancelled without warning, so that our provincial wildlife affiliate found it necessary to take over and co-operate with its provincial wildlife department to ensure distribution of the kits at the last moment.

The reason given for these cutbacks is not the quality of the program, but the lack of funds provided for, what is stated to be, an "outside" program. It is apparent that some provinces have forgotten that the National Wildlife Week kit is a co-operative program, under the jurisdiction of the Federal-Provincial Wildlife Conference. The Canadian Wildlife Federation (CWF) undertook to prepare, produce, and distribute the National Wildlife Week educational kits on behalf of this conference. By cutting back, you are in effect curtailing your own efforts.

As I stated last year, National Wildlife Week is the single, most important time of the year to make our voice heard, express our concerns, and promote our work,

whether we are a governmental agency or not. By seriously limiting our efforts, we are in effect denying ourselves the opportunity to assert our interests in wildlife resources in Canada.

It is my view that this conference needs to reconfirm its commitment to the National Wildlife Week program. CWF requires this expression of support if we are to continue to produce a useful, high-quality product for distribution.

We will be participating here in a workshop on National Wildlife Week to review the program and its distribution policies. It is my hope that we make effective use of the time allotted, so that all of us may emerge with renewed conviction and strong support for the program. We need useful recommendations that will assist us in providing for your needs and priorities, while making National Wildlife Week an on-going national success.

Aside from this internal review of the conference's National Wildlife Week efforts, CWF has invited a direct response from its members. In the July/August issue of "Wildlife report" (Canadian insert to "International wildlife") we have asked our members to respond to several questions about National Wildlife Week. One part of these questions is to determine:

(1) whether CWF members are aware that National Wildlife Week kits are distributed to schools in their respective communities, and

(2) if they are, how they are used.

The other questions are designed to test the members' perceptions of how National Wildlife Week is observed in their own community, and whether, or how, they participate.

CWF has felt from some time that we are not taking full advantage of the opportunity offered by National Wildlife Week to pursue activities that will broaden public awareness and understanding of wildlife in Canada. When the responses to these questions are tabulated, the results will be circulated to each provincial wildlife agency for information and comment.

With respect to distribution, I want to emphasize that CWF has continued its efforts to keep costs low and service as efficient as possible. To that end, we have offered to provide centralized mailing/distribution from Ottawa, whereby kits are mailed directly to schools in each province. Alberta and Newfoundland-Labrador took advantage of this option in 1982 with favourable results.

Poster contest

Before moving on to consider next year's theme, I would like to comment on the annual poster contest. I am pleased to announce that Timmy Milligan of Tamworth, Ont., was declared national winner this year. The Canadian Wildlife Federation had the pleasure of presenting Tim with an award at its 1983 annual convention held in Prince Edward Island, which turned out to be one of the highlights of that meeting.

As you may recall, the introduction of a poster contest was undertaken for the purpose of creating a "participation event" to highlight the Week. This approach

has met with considerable success. Some provinces, such as Manitoba, make full use of opportunities to analyze entries with respect to their own effectiveness in educating youngsters and, in many cases, the educators themselves. As a means of making this part of the program even more meaningful, I would propose minor modifications.

At the present time, the contest concept restricts recognition to winning students or to an individual student. No real acknowledgement is extended to schools or the efforts of the teachers involved. I believe that by changing our procedures, we could enhance the school-teachers' participation as well as the students' involvement in the program. Instead of a students' poster contest concept, I would suggest that we consider the poster event as a "National Wildlife Week Achievement" project.

Through the National Wildlife Week program, teachers would still be asked to have a poster classroom lesson, and submit their posters to respective provincial wildlife departments. The individual departments would continue to select the most outstanding posters, but extend recognition to the teacher, school, and student. These posters, and others submitted, could form the basis of an exhibition, sponsored by the province, as is done at present in some areas. How recognition is extended and what is done with posters would be up to each participating province. CWF, however, would continue to request at least 10 entries from each province to be submitted for national recognition. We would select a national winner and present a trophy to that school, together with a plaque to the student and a certificate to the teacher who made it possible. Plaques would also be given to runners-up and honourable mentions. The trophy could be called the "National Wildlife Week Achievement Award", to be inscribed and circulated each year to the most outstanding school in the country.

The objective of a "National Wildlife Week Achievement" program would be to encourage teachers and schools to get their students involved in something that is fun and has an educational value. In addition, it reduces the competitiveness of a contest that gives recognition to only one person. Instead, an entire school is given credit and teachers receive recognition for their efforts.

Finally, respecting the poster contest entries, it is necessary to consider their content, as well as their production. A review of the poster submissions over several years clearly identifies a general, negative approach to wildlife conservation. This seems to signify a failure, on the part of wildlife agencies and conservation organizations, to encourage a positive approach to wildlife. The protection, conservation, and effective management of wildlife and their habitats should imply an active, positive concept. We should, therefore, consider how we can develop the criteria for the poster contest, so that it encourages a more positive response. That is a challenge that is well worth considering.

Theme for Week

Finally, I would like to discuss next year's Wildlife Week plans. Last year, we suggested and received approval for identifying the National Wildlife Week kit with one theme only--"Learning about wildlife"--and within that theme to deal with a different topic each year. The kit, of course, would not change the definition of what the Week is all about in terms of education and our purpose.

The 1984 program would be Part 2 of the "Learning about wildlife" series. We suggest that the topic deal with "Wildlife and wetlands". This would provide an opportunity to review the role of wetlands and their importance to a wide range of wildlife species. Moreover, this topic could introduce the schools to the extensive array of materials on wetlands, their role as "wildlife habitat", and their ecological role.

In addition, the CWF itself would propose the inclusion of further activity-oriented projects for students and teachers to highlight more public participation than has been evident in the past. In this respect, we anticipate including an "Acid rain testing kit" and other items that will, in our view, increase the teaching potential and value of the classroom kit. If any participating agency has a suitable addition to the kit, available in the required quantities, CWF would be prepared to consider its inclusion.

That concludes my report with respect to Wildlife Week. I am going to call now on Laurel Whistance-Smith, who will be reporting on behalf of the Steering Committee and presenting the recommendations that have come out of their deliberations.

National Wildlife Week

STEERING COMMITTEE REPORT
Recommendation No. 10

L. Whistance-Smith
Supervisor, Extension Development,
Ontario Wildlife Branch

Recommendation No. 10 of the 46th Federal-Provincial Wildlife Conference called for individual jurisdictions, led by a three-member Task Force, to review and evaluate National Wildlife Week, including the efficiency of delivery systems and the effective use of materials generated by the Canadian Wildlife Federation (CWF). So it was that Dennis Minty, Ted Muir, and myself decided to prepare a questionnaire to be answered by the 12 provincial and territorial wildlife agencies, CWS, and the following nine national-level NGOs: Canadian Nature Federation, Ducks Unlimited Canada, World Wildlife Fund Canada, Canadian National Sportsmen's Shows, The Nature Conservancy of Canada, Canadian Federation of Humane Societies, Greenpeace Foundation, International Council for Bird Preservation and, of course, the Canadian Wildlife Federation.

The questions covered seven major areas that would satisfy the requirements of Recommendation No. 10. These were: commitment to National Wildlife Week, distribution systems, promotion of the event, involvement of staff, materials available, feedback and, finally, the contests.

Government agencies were also asked to check with their local NGOs and include that information in their questionnaire reports. From this we thought we could get a feeling for what was actually happening in Canada around National Wildlife Week, what was working, what the pitfalls were, and what we might suggest to improve the effectiveness of National Wildlife Week.

We received replies from all government agencies except one, and from six of the NGOs; and I would like to take this opportunity to thank those agencies for their prompt responses and helpful comments. I propose that the following tentative conclusions that the Task Force has made can be the subject of further discussion from the floor.

Commitment

It is apparent that, other than the CWF (which has a particular involvement in the event), national-level NGOs are not involved at all in National Wildlife Week. They do not buy or distribute the kits, for instance. This is, perhaps, for obvious reasons. Only a very few provincial-level NGOs seem to be involved, though they are probably CWF affiliates. There would seem to be considerable scope for involving that private sector much more in the delivery of the National Wildlife Week program. I leave you with the question then: "How do we do this?".

On the other hand, there is a definite, but mainly informal or traditional, commitment on the part of most governmental wildlife agencies to National Wildlife Week, and this is manifested by them at least buying and distributing the kits. However, a further impression is that this commitment is still somewhat

tenuous, and dollar or politically dependent. The agencies often mentioned that they were committed to buying the kits as long as funds were available, or as long as there was political pressure from NGOs.

Distribution

The target audiences for the kits particularly, and for other promotion of National Wildlife Week, have not been defined. The survey showed, for instance, that only four provinces restricted the distribution of kits in schools, and these four had different target groups entirely. This is a major shortcoming of the program, as I see it. Surely we must decide who should get the kits, and install a system that ensures this distribution for the sake of efficient use of funds. What should our target groups be for the kits and for other promotion of National Wildlife Week? This is a major question.

There is much variation in how and to whom the kits are distributed. For example, some agencies distribute the kits themselves, others distribute them partially, with the balance being distributed through the provincial educational agency and, to a lesser degree, through a provincial NGO. Although most agencies do not give the kits to students, there are a few agencies that apparently do not bother to control even this aspect. There is some further distribution to other target groups, with libraries, provincial wildlife federations or fish and game clubs, radio stations, daily newspapers, and fish and wildlife staff being the most often cited. Can we establish a standard system of distribution? If so, what should it be?

Promotion

Media coverage, through news releases, was a governmental activity that was most often carried out as promotion. However, media coverage of National Wildlife Week could be greatly improved, we believe. This is a low-cost item that only requires a little time and effort. I think we can get a lot of mileage out of more concentration on the media.

Few special events seem to be promoted by government wildlife agencies during National Wildlife Week. Perhaps this is an area where the provincial NGOs could make a big contribution. Manitoba seems to do a number of special things, most notably appointing a celebrity ambassador for the week. Are there some special events that could be sponsored across Canada to make National Wildlife Week seem more cohesive?

Involvement

The survey found that most government-staff activity involves speaking engagements at schools. Alberta and Ontario were able to offer some figures, but we have no idea how much of this is done, and how many children and teachers are contacted across Canada. Some displays and audio-visual shows are also offered to the public. Should commitments be made in work plans for each year to do certain things for National Wildlife Week? I know this is something I would like to see in Ontario.

Materials

There was some discomfort expressed relating to the relevance of kit materials to some areas of Canada. Perhaps some provincial materials or guidelines to users should be included in the kits by the provinces, to help make the materials more geographically specific and useful.

The general feelings about the kits seemed to be mixed. There were compliments, criticism, and appeals for improvement. Perhaps more thought and more constructive comments should be conveyed to the CWF. Surely it is the agencies' responsibility to give the necessary feedback to the developers of the kit, who make it available on the agencies' behalf.

Should we establish a National Wildlife Week program committee, led by the CWF, to co-ordinate and oversee certain aspects, such as the kit, or all aspects and events of National Wildlife Week on a national level? If so, should the provinces and territories form their own internal committees to liaise with this national committee to oversee the organization and delivery of local programs?

Feedback

Kit evaluation has been minimal, and this is unfortunate. Ironically, many agencies said that they did not ask for feedback on the kit material, and yet they said that they would like to have feedback. Perhaps all that is needed is to ask. But maybe we could come up with some simple suggestions on how this could be done most effectively.

Contests

Most of the agencies participate in the "National poster contest". My own does not, because of our Ministry of Education's policy of not encouraging competition in the classroom. However, we do have some local contests.

Comments on the contest were mixed, but most would agree that it is a way of monitoring the attitudes of children towards wildlife. Better use of the media could be made to publicize the contest and the winners locally. Other kinds of contests are not usually sponsored--although Manitoba again has some other kinds--and perhaps this should be examined. Are other kinds of contests worthwhile?

If I may take off on a tanget here for a moment, one of the major concerns expressed by governmental wildlife managers about the contest seemed to be the "anti" and protectionist or "save me" depictions by children on almost any wildlife theme. Ken Brynaert brought this up earlier. In Ontario, we have monitored these ideas of children in grades 4, 5, and 6 over 3 years in a local poster contest in the Parry Sound area, which is a rural area of south-central Ontario. The "anti" posters typically depict, in vivid detail and technicolour, blood, gore, and cruelty to wildlife through hunting and trapping. These students apparently feel that those activities are generally repugnant, not necessary, and endanger wildlife. Many "anti" posters arrive in bunches, which leads one to believe that a particular teacher's attitude is being instilled in the children. In our sample in the Parry Sound area, the actual number of posters that depict hunting or trapping has increased over those 3 years. More importantly though, the number of posters with the "anti" slant on the theme has actually decreased

from 24% in 1981 to 9% in 1983, and we feel encouraged that our yearly talks to these students have had an important impact.

Likewise, the protectionist or "save it" theme has been consistent over the 3 years, but when analyzed does not have to do with such species as beaver and Canada Geese, which would give us cause for concern. "Save it" is actually directed towards species that do need assistance, such as Peregrine Falcons and Whooping Cranes. Also, the "save it" theme must be examined by using the posters themselves. The impression one has is that people alone have caused the "save it" problem, and they alone have the ability to solve the problem. The underlying question from the children is: Do we care enough to do something to save it? Here again we think we are making some progress. But I must say it is the interest, dedication, and enthusiasm of a particular conservation officer, in this case, that is achieving these results. I cannot stress enough the importance of that kind of touch in this kind of educational endeavour.

Ted Muir, in Manitoba, has found a similar kind of evolution from contest to contest each year, for the same age group, as reported in his article, "What does it all mean?".

Finally, the popularity of animals depicted is very useful to monitor. In our study in Parry Sound, deer, songbirds, and rabbits are the favourites of children. Interestingly enough, these are the exact three favourites apparent in Manitoba posters. Ducks, fish, moose, and beaver are commonly depicted, but lynx, turtles, frogs, bees, racoons, skunks, owls, and things like that are at the bottom of the list. This might give us some clues about what species we could more effectively focus on to get messages across to children.

I think we can conclude from this that the poster contest is a very important way of monitoring children's attitudes and measuring changes in those attitudes over time. Too often, I think, we jump to conclusions when we see some of the ways that wildlife is depicted. Perhaps more careful analysis may actually reveal some positive signs of progress, as we have seen in Ontario. I urge you strongly to use the posters to evaluate whether your messages are being received by those delightful little minds.

In an overview of the poster contest, we may further conclude that we do not need to convince students that they should like wildlife. They already have a good grasp of the aesthetic value and the importance of wildlife. However, there is considerable room for improving their awareness of the needs of wildlife and the serious nature of problems confronting wildlife today.

Other points

Finally, there were some general comments offered on the questionnaires that may warrant further discussion. They are as follows:

(1) More materials are needed for the children themselves, such as games and puzzles.

(2) The kits still arrive too late.

(3) National Wildlife Week needs a higher profile through special events and promotional materials to make it more nationally cohesive in character.

(4) The fundamental question was asked by one province: "Is the kit the best way to educate children about wildlife?".

(5) National Wildlife Week should be part of a larger context of educational programs in all the provinces and territories.

(6) Children are getting mixed messages from all kinds of organizations, teachers, and textbooks. Perhaps this should be looked at and something done about it.

(7) Success may only be limited by the enthusiasm of governmental and NGO staffs.

(8) The kits should be written for the target audience, when this is decided on.

(9) The National Wildlife Week kit poster should be simple and nationally representative.

(10) More simple and specific themes should be chosen so that teachers can readily focus on the subject and students can better grasp it.

On that note, I would hand over further discussion to you. Subject to your discussion and approval, and some further thought by the Task Force, I would propose that the Task Force produce a finalized document by September, which would go a step beyond Recommendation No. 10 of last year to a set of guidelines for a co-ordinated and co-operative approach for governments and NGOs to use in delivering the National Wildlife Week program.

National Wildlife Week

SUMMARY OF WORKSHOP DISCUSSION

D. Love (World Wildlife Fund Canada) explained that other NGOs did not become involved in National Wildlife Week because there was nothing in it for them. The World Wildlife Fund had attempted to get involved in the creation of the material for the last 2 or 3 years to no avail. They did not get involved because they were not asked to, nor were given a chance to. He added that one of the things the Task Force was going to have to look at, if it wanted a wider representation of NGOs, was a mechanism for seriously involving other NGOs.

K.A. Brynaert (Canadian Wildlife Federation) replied that he was disappointed to hear him say that there was nothing in it for him. That implied to him that Mr. Love considered the information contained in the kit as not being worthwhile. He asked if he considered that his participation would elevate it to a point where it would be something very worthwhile.

Mr. Love said he did not mean to imply that there was nothing in it for the World Wildlife Fund as far as getting some information to the kids across Canada. Their involvement would definitely make it better than it presently was.

Mr. Brynaert invited him to submit anything, by way of a contribution, either to the theme or the actual subject material, and the CWF would certainly give it consideration.

Mr. Love said that he would submit some comments on education. He felt that it was the duty of agencies such as his to submit to the CWF some fairly well thought out evaluations.

S. Banks (Alberta Society for the Prevention of Cruelty to Animals) spoke from personal experience as a junior high school teacher. She said that they regularly received the National Wildlife Week kit just the week before Wildlife Week, or even on the Monday of the Week itself. She felt that there should be a 2-month lead time, as the Week fell at the time of year when most teachers already had programs planned and underway, and were unlikely to undergo the initiation of another major project. She suggested a tie-in with Environment Week. She asked for examples of how the material could be used throughout the year--that would be a favourable point. She suggested that teachers' groups be contacted to see what their needs and requirements were, because they were the ones who would be using the material. Curriculum guides should be obtained to find out exactly where the issues of wildlife, habitat, and environment were dealt with in each of the grade levels.

She mentioned that in Alberta there was an Environmental and Outdoor Educational Council that published a journal and newsletter, and suggested that perhaps something could be included in this newsletter on up-coming themes, and when the materials would be available. She also suggested that teachers be involved in the production of the material, because they were able to give keys as to the best approach to use with children.

Mr. Brynaert, in reply to the comment concerning delivery dates, explained that before the material could be even printed, the CWF had to have a commitment from

the provinces in terms of how many units they would take; this was necessary in order to maintain its economic viability. He added that if he could walk away from the conference with a commitment from each of the provinces and territories, they could start working on the material the next week and an early delivery date could be set. One of the reasons why the CWF was trying to develop a standard format, "Learning about wildlife", was so that the material could be used throughout the year. That was the reason for "Volume 1" being printed at the bottom of the first booklet; this year would be "Volume 2". He thought her suggestion about reaching teachers through the medium of newsletters was an excellent idea and highly recommended it. This initiative should be taken by the provincial wildlife agencies themselves, in co-operation with some of the NGOs who might have access to teachers. The more attention that could be focused on National Wildlife Week and the material that was provided for the schools, the more effective the whole program would be.

He explained that teachers were involved to some extent in the preparation of the material; for the past 8 years a team, through the Ontario Board of Education, had very actively participated in reviewing the material. One of the senior members of curriculum development in the Ontario Department of Education had worked with the CWF for the past year and had provided good information. Other teachers might evaluate that as being somewhat lacking, but the CWF would not think of producing something for schools that did not have that kind of input. He explained that the difficulty, as far as other people being involved, was whether or not it was feasible; everybody would like to be involved. He was afraid that there would really be delivery problems if the material had to be circulated and have the approval of 20 or 30 different agencies. If Ms. Banks had any input, he would appreciate receiving it.

D. Meredith (Conservation Education Supervisor, Alberta) said that the biggest criticism they got on the kits was that they were written for junior high and high school, and they found that their biggest audience was in the elementary school grades. The teachers used it, but not to its full extent because of that. They did have a delivery problem with the kits, which usually arrived just prior to or during Wildlife Week. The problem had been solved this year by going through the CWF; it cost a little more, but the extra cost was worth it.

He had found a definite anti-hunting bias coming back in the posters, but it was decreasing and was now down below 50% of the posters received. This decrease was due to "competition" amongst regions to have officers deliver programs to schools; the majority of the posters came from the regions where competition was taking place. He expressed concern that the majority of the posters were received from rural areas, and said that this might have something to do with the anti-hunting vs. pro-hunting bias. He found less interest from teachers in the urban areas, and felt that was where efforts should be concentrated. He explained that his experience in going to rural schools was that the kids there were not hard to convince, while in urban schools they had a difficult job. He found the teachers highly biased in urban areas vs. rural areas.

He mentioned that he had been approached by the John Janzen Nature Centre, Edmonton Parks and Recreation, and the Department of Agriculture to become involved in National Wildlife Week. As a result, Wildlife Day was organized on the first day of Wildlife Week. Several thousand people passed through different displays put on by various organizations at Kinsman Field House. He said that they were going to pursue this further, and try to get more agencies involved at the local level, if not at the national level.

E. Kure (Alberta Fish and Game Association) said that his organization had made little input other than directly through the CWF. He thought that there had been an improvement in the delivery system, but that this had probably diluted the incentive of fish and game clubs, as there was really no big demand on local organizations to take the materials to the schools; this was not a criticism, just an observation. There was a need for national promotion, and he suggested expanding on the "Wild Goose Jack" concept by getting a celebrity on national media to promote Wildlife Week; as a follow-up, each province should advertise on a provincial scale. He felt that this would strengthen the school set-up and NGO participation, because it would give some status to Wildlife Week right across the country. He also suggested that a response-insert be included in the kit, so that users of the material could return a sheet showing their comments and concerns.

It seemed to him to be a natural thing for kids to protect little things and love them, so the material coming back was bound to be pro-protection. He suggested that it might be helpful to look at the concept Agriculture used with kids, asking them: "What do you get from a cow?" or "What do you get from a chicken?". Perhaps they should ask: "What do you get from wildlife?"; they needed to market the idea. He mentioned that Wildlife Week usually hit the Easter holidays in lots of schools across the country, and some teachers assumed that if it was not used during the Week, it was not used at all. He suggested broadening the use of the material over a long period of time.

Mr. Brynaert asked him if he saw a strong pro-protectionist bias in the material that CWF had been producing.

Mr. Kure replied that he thought it was being interpreted as being pro-protection, and that was probably why the posters came out as they did. It was natural for kids to want to protect little things, and everyone appreciated that; all he was saying was that it was probably the reason for getting the response. It was difficult to promote wildlife to kids without being pro-protection.

Mr. Brynaert said that he accepted that there might be that kind of bias, but the CWF was very conscious of giving a balance throughout the whole program. They had introduced the concept and rationale for trapping last year, and had striven to be honest and factual in the production of the material. He suggested that fish and game clubs should consider broadening the distribution of the material to Boy Scouts, Girl Guides, 4-H Clubs, etc.

J. Finlay (John Janzen Nature Centre, Alberta) said: "You are missing the boat completely." At the nature centre, they were fully aware that there was a tremendous upsurge of interest in wildlife in Canada. He mentioned several promotional campaigns that were undertaken by his nature centre, and the aggressive marketing campaign to develop awareness in Edmontonians about Peregrine Falcons; over a thousand people a day had come to see the peregrine display.

He said that the centre had opened in 1976 with 33 000 visitors, and 6 years later it had jumped to 90 000, but less than one-quarter of them were schoolchildren. They had co-ordinated the kick-off to National Wildlife Week, and intended to do something similar for National Environment Week. He proposed that the nature centres across Canada be used as the interface with the public of Canada to do this. They had had good contacts with them; it had cost his centre $1000 last year in telephone calls alone. If government agencies would support his telephone costs, and use his line to contact the nature centres and co-ordinate

it, he would "...run the rest in support with you. But, I am going to run it anyway, whether you run it with me or not."

Mr. Brynaert said that he was most encouraged to hear those kinds of words; they had just broadened the scope of Wildlife Week. He added that if Mr. Finlay did not get co-operation from the government, to come and talk to the CWF.

R. Goulden (Manitoba Wildlife Branch) said that National Wildlife Week in Manitoba was truly a joint effort; one which he thought was good, but could be made even better. In Manitoba, they had tackled the problem of competitiveness head-on, and in the past year they had had a very fine co-ordinated effort between the Manitoba Wildlife Federation, Manitoba Naturalist Society, Fort White Nature Centre, and nine other wildlife-oriented, private-interest groups. Through that kind of co-ordination, they got the message delivered much more effectively than either his department or the Manitoba Wildlife Federation, alone or jointly, could have done.

He mentioned a number of initiatives that they had introduced, such as a prose and poetry contest as well as the poster contest. His Minister was very much behind this kind of thing and, consequently, all of the winners and a pretty large array of runners-up had met the Minister in his office, and were taken to the Winnipeg Public Library to meet a lot of the public in a coffee party, were given a set of binoculars each for their efforts, and were really given some pride in what they had accomplished.

He said that Manitoba was now devising a speakers' bureau to prevent duplication when going out and speaking during National Wildlife Week. The Wildlife Federation, the provincial Wildlife Branch, and the Naturalist Society would take certain segments, or schools, or target groups in society and concentrate on them in a co-ordinated way. He suggested that other jurisdictions might wish to do this as well. One other thing that they did was "hit" people at shopping malls; setting up displays at malls was not complicated, and they managed to get to hundreds of people on key weekends. He told Mr. Brynaert that he would let him know the number of kits needed not later than 30 August 1983.

Mr. Brynaert said that, if there was a provincial award, there was no question of where it would go; the job being done in Manitoba was fantastic and was appreciated very much. He agreed that competitiveness was a problem in terms of people who felt that they might want to stand off from National Wildlife Week because the CWF was sort of spear-heading it. He said: "You don't have to design your efforts around the CWF package or concentrate your efforts in schools; the important thing is that all groups interested in wildlife are free to develop whatever initiative they wish, but to develop something." He thought that a number of organizations were missing the boat in terms of not using Wildlife Week as a focus for whatever message they wished to convey to the public. He suggested that "we divide the pie up rather than all try to concentrate on the one very small program, and emphasize a total effort that will be that much more effective in terms of delivering a message to the public."

L.H. Mayeda (Nature Conservancy of Canada) speaking more on his own behalf than that of the Nature Conservancy, suggested that consideration be given to holding discussions or workshops on National Wildlife Week at the various educational conferences that occurred in various provinces, e.g., the Science Teachers' Association of Ontario. He asked if there was a difficulty in acceptance of the

National Wildlife Week program because of the existence of the National Environment Week program, which occurred in June, and which was sponsored by Environment Canada. He had received a call from a University of Waterloo student who was conducting a survey on National Environment Week to determine its level of acceptability and success.

Mr. Brynaert replied that they had considered workshops and, in a very small way, had attempted to do this. They had held a couple; one recently was in Ontario at the Leslie Frost Centre, during a teachers' workshop session. It was a very valuable way to get the message across; however, the limitations were the amount of money that it cost. Environment Canada provided $10 000 each year for National Wildlife Week, but that was the same amount that they had provided in 1962. He said that they appreciated the $10 000, but $100 000 would be better. This also was the problem with the provinces; the level of their participation was the same as it was 10 years ago, if not less, and unfortunately, in terms of costs of production, this meant that most provinces were delivering something like 30% of what they did 10 years ago. The CWF was looking at ways and means of getting other financial participants. They had a proven program, and there were a number of industries that had indicated a very sincere interest in Wildlife Week and the type of message that was being put across. He suggested that "we might get a bigger bang for our buck by inviting some outside financing into the program", and they were looking at that.

Mr. Mayeda reiterated that he was wondering if there was a difficulty on the part of schools or the students involved, concentrating their attention on two different national weeks.

Mr. Brynaert replied that they were certainly two different issues, both important in his view. He did not see it as competition or an impediment.

L. Whistance-Smith (Ontario Wildlife Branch) did not see it as a problem either, but she had heard some rumour of problems with National Forestry Week, which occurred closer to National Wildlife Week. He said that when they went out in Ontario and talked about habitat management, and somebody had also just recently been there talking about forests, there might be some confusion. They had not investigated it very well.

M. Hummel (World Wildlife Fund Canada) asked if it would not be helpful to the CWF for commitments for Wildlife Week material to be made at the conference. He could see some problems, but thought that it would be a good way to go; it would seem to alleviate the burden on the CWF.

Mr. Brynaert agreed that it would be desirable, but usually they would be talking about different budget years. He knew what the problem was and he was hoping to be able to overcome it. He felt he should say that when provincial governments were considering their level of participation, they should remember that the CWF's total bill, exclusive of any staff input (design, typesetting, purchasing rights, photography, etc.), was $79 540 this year. They recovered, through the sale of Wildlife Week material, $41 000. He mentioned this to point out that they were the biggest participators in Wildlife Week, and they should be; they looked upon this as one of the most meaningful and rewarding tasks of being involved. He just wanted everyone to realize that Wildlife Week was not a profit-making venture, and that the CWF was the major player in this program.

Mr. Love said he had a suspicion that they would be much more successful if they became more specific both in the target audience and in some very clear-cut and specific objectives. He suggested that the target audience should be grades 7 and 8, because of flexibility in elementary-school curriculums which was not available in high-school curriculums. He thought that the kit this year was written at about the grade 12 level. If they were going to elementary school kids, the kits would have to be revolutionized, because a lot of stuff in the projects that were suggested was very dry; it looked like education in the 1940s, not in 1983.

Mr. Brynaert commented that it was written precisely for the Grade 12 level because they were writing it for the teachers, not the students; the Ontario Board of Education had suggested that it should be written at that level.

Ms. Whistance-Smith said she did not know whether the fact that they were teachers' kits was really advertised well enough. There was a lack of materials for the kids; they always wanted at least the poster to put on their wall, and that kind of thing was not being offered to them. She said that there was a lesson plan for the teachers that should be looked at; she assumed it was the kind of thing that educators wanted. In Ontario, they felt that grades 4, 5, and 6 should be the target group. Children at ages 9, 10, and 11 were still open-minded enough to make some decisions themselves, and also were still interested in animals; after grade 5, they were not as responsive. She would like to see that kind of focus for the kit. She asked who else they should get to--the general public, and how best to do that; perhaps through the media. She could see two kinds of audiences. She agreed that there was a lot of interest in wildlife by many people, but they did not get the "bang for their bucks" with adults. When they were talking about children, they were talking about a long-term investment of dollars and ideas. They had to think about that kind of long-term environmental management, and children were the best target for that, in her opinion.

N. Gaelick (Canadian Wildlife Federation, seconded from Alberta) said that in Alberta the kit was used from kindergarten to Grade 12. He felt that the purpose of this workshop was not really a critique of the material, but a discussion of how they could get better use out of what they had. He wanted to hear more from the provincial agencies about delivering the material. He reiterated that the material was, by and large, not a students' kit; it was designed for teachers, but it could be used anywhere simply through the addition of whatever material they wished. He mentioned that, 4 years ago, the theme was "Wildlife in your backyard", and Alberta had inserted a wonderful supplement with some hands-on activities for elementary kids that was very successful. They could make the material do what they wanted it to do. In Alberta, they did hold a series of workshops for association members, and he figured they had had a couple of hundred people out in schools. They found they needed that personal contact, that delivering the kit to the schools was not enough. The province had been working closely with the John Janzen Nature Centre for a number of years, and providing them with materials. Alberta had also participated in teachers' conventions. These were all things that helped to get a tremendous value for their dollar in the use of the materials; just to send it out and forget it, without any assessment of what they were doing, was not good value.

J.D. Roseborough (Ontario Wildlife Branch) congratulated the Task Force for doing an excellent job; the report they had presented to the directors had a lot of good ideas that somehow had to be put into shape. He suggested that the Task

Force should continue, so that they did not lose the momentum that had been gained in the last year and during this session. Some people had the idea that they should be educating everyone, but in Ontario, due to very strict economic constraints, they had to think in terms of targeting their audiences. Because of the Ontario Ministry of Education's policy of not being competitive, they did not support the poster contest. He thought, however, that they would support any kind of competition in schools as long as it gave every kid an opportunity to use his or her talents. He felt that it was important that they targeted, and it was also important that they had more NGO participation.

D.F. Griffin (Canadian Wildlife Federation) urged the conference to stick with the same target group for the kit that they had now, or even to narrow the scope. She suggested upper-elementary as offering the best scope, because this was before the hormones took over. What disappointed her, as Education Committee chairman for the Canadian Wildlife Federation, was that very few of the fish-and-game clubs across Canada, who were affiliates of the CWF, were aware of what the Wildlife Week kit was. She felt that better use should be made of such groups within the school, or have them hit the larger target audiences mentioned earlier. She was not too concerned about hitting a larger group in the schools, because of Project Wild, which was an all-grades level, year-round program. Project Wild and National Wildlife Week should be complementary. She mentioned that national and regional or provincial committees had been suggested to discuss the Wildlife Week kit. They should be brought together to discuss Wildlife Week in general and make better use of all groups, and not split their efforts into repeating what someone else was doing--each group had its own target audience.

R.G. Morgan (Ontario Federation of Anglers and Hunters Inc.) said that every time wildlifers got together and talked about a single project, the ideas started to flow. He mentioned that the present Task Force was comprised totally of governmental people to review National Wildlife Week. He congratulated Ms. Whistance-Smith on here excellent presentation, but suggested that the mandate and make-up of the Task Force be broadened to incorporate key non-governmental people, perhaps even some people from the educational system, who could start looking at the kinds of ideas that could be put into place by various agencies and groups right across Canada. Many groups were involved in educational activities of one kind or another, which might or might not encompass National Wildlife Week. He suggested that they pick the brains of all the wonderful people available to them and generate some guidelines, then they could all get on with promoting National Wildlife Week and playing the role in it that was most important to them.

Mr. Brynaert said that Mr. Morgan's recommendation, along with the recommendations contained in his report, would go forward to the Recommendations Committee. (See Recommendation Nos. 13 and 16.)

Update report

PROPOSAL FOR A NATIONAL WILDLIFE EDUCATIONAL PROJECT
Recommendation No. 19

N. Gaelick
Director of Education Services,
Canadian Wildlife Federation

The obligation that the CWF took upon itself last year with respect to Recommendation No. 19 is virtually completed, and I would like to tell you about it.

Many of you are already familiar with Project Wild. It came about in recognition of a need of the Western Fish and Wildlife Association, which comprises 13 western states and two Canadian provinces. I think the initial statement that drove them to this was one that several of you took issue with last year, when it was said that there is at present no really good wildlife resource educational program. That was their conclusion, and I certainly agree with it. I am not talking about information packages now, but an educational program. This group, recognizing that need, contracted another outfit known as the WREEC (Western Regional Environmental Education Council) to develop such a program. This same group is the one responsible for developing Project Learning Tree, which many of you may have heard of. Project Wild is, in essence, a sister-project to Project Learning Tree.

The original participants in Project Wild were the 13 western states. The two Canadian provinces that are members of the same organization elected at that time not to participate. The participants now have grown considerably. At least, I believe, seven or eight additional states have joined and a number of non-governmental organizations. The Canadian Wildlife Federation, I am pleased to announce, was one of the first, if not the first, NGO to joint. There are several others, including the Audubon Society, one or two of the Safari chapters, Dallas Safari Club, and Defenders of Wildlife; and negotiations are presently going on with the National Rifle Association. A number of what may appear to be very strange bedfellows are coming together for this project, and the impact of that we will discuss in a moment.

The materials themselves were developed and written by teachers, by teachers of teachers, and by wildlife managers in a series of three very extensive writing workshops. This material is presently being evaluated in three of the American states; it has been tested and has undergone, to this point, three revisions. We know the material can be used. We know it works. Preliminary reports on the evaluation tell us that it does what we want it to do.

The CWF's role in this project is somewhat different from that of the member states, and I will come back to that later.

Project Wild

I suppose the best way to start off describing Project Wild is to tell you what it is not. It is not a textbook, it is not a course of study, it is not a curriculum, it is not an information package, it is not anti-hunting, it is not

pro-hunting, and it is not competitive with the activities or objectives of any group represented in this room.

I think perhaps a few words on its not being a text or course of study would be appropriate. If we were to develop a course on wildlife resource education, what would you do with it? The school day is already full, and you do not put something else in there without removing something. If you were to go to the Department of Education and say: "Here is a course we would like you to teach", I do not think the reception you would get would be very favourable. Again, if you develop a course, it has to be slotted; it is designed for a particular target. That has some blessings, but you also lose something. If you target it to one group, you lose the rest.

With reference to the Wildlife Week materials--who uses them in a school; which teachers use them? I think you will find that, generally, science teachers may use those materials--life science and biology teachers, and perhaps the teachers of an environmental or environmental enrichment course, but this is not universally taught across the country.

Project Wild gets around this because it is a framework, it is objective, it is compatible with all other programs that I have seen; and we can throw in words like "holistic", "integrated", and "a source of activities". It is also a source of information for teachers. As I have mentioned, it is neutral, neither anti-hunting nor pro-hunting. It is a means of translating concepts and information from teachers to students. That is important. If a program can be used that is applicable, and Project Wild is, not just to science and not just to a particular grade, but to all grades and all subject areas, so that every teacher in a school can use Project Wild in his or her teaching, you tap a potential audience of something like 25% of Canada's population (they are in schools). If you add to this another approximately 25%, who are the parents of all these students, you are looking at a program that can have potential access to almost half the population of Canada. If you develop a package that is just going into science classes, you are going to be dealing with far, far fewer students on that basis.

Let me give you a very simplistic description of how Project Wild works.

The materials

The Project Wild materials, which are all related to wildlife (the initials WILD stand for "Wildlife in learning design"), can be used by any teacher, in any subject, at any grade level. We are not asking a math teacher to forget about math and teach about wildlife, or an English teacher to do the same, or a phys-ed. teacher. Those teachers will still do what they are being paid to do, teach their own subjects, but in doing so, they can incorporate concepts and basic philosophies of wildlife, its value, management, and many other objectives in their teaching simply in this way.

Math teachers at the elementary level, say, may use numbers now, or apples and oranges, but in these exercises will use examples that may well be the dynamics of a white-tailed deer population. They will still be talking about addition, subtraction, and multiplication, but when they are finished, the students will have some idea of how these things work in nature and in wildlife. A phys-ed. teacher will still have the kids running around in the school-yard exercising,

but in these exercises, 90% of the children will be the prey and 10% will be the predators. At the end of their activity period they will not only have worked up a sweat, but they will have some idea of a predator-prey relationship in nature. By doing this, any teacher, at any level, can use the materials.

The materials themselves are keyed to all grade levels and all subject areas. The total package, at the moment, consists of about 200 exercises. Teachers of math or any subject areas merely have to look in the back and find the exercise applicable to their subject and pick what they want to do on that.

CWF's role in the project

Initially, each of the participating states paid from $7000 to $10 000 to participate in the project. Had the two Canadian provinces wished to participate, they would have paid the same. Any that would now wish to participate on their own would also be required to do that. The CWF, joining as an NGO, has put that money up, in essence, for you. We will now have the material for Canada, and will provide it to the Canadian provinces or territories, or other organizations that wish to use it, at cost.

This is not a profit-making operation for the CWF, in fact it is going to be far from that. Having put up that initial sum of money, we are not planning to recover it, but will charge only for the cost of the material that is used. This will be available to teachers only through participation and workshops. The initial response from some of the people whom I have talked to has been very positive. Already I think we have some over-bookings on workshops, and the material is not even yet in our hands.

There will be an initial training workshop in San Francisco: CWF staff and others will attend that, and we will then hold the initial training workshops for provincial agencies across the country. So, in reference to Don Robinson's paper, here is a way to do something in the face of much reduced budgets, at a very nominal cost, and I think it will have great use and very substantial impact on the educational scene.

Some of the other concerns expressed last year should, I think, be treated at this conference. As I said, it is not competitive. It is applicable throughout the school year; not tied to a particular week or time. Therefore, it does not compete with National Forestry Week, or National Environment Week, or anything else. It can, and indeed must, have local application.

As I said earlier, Project Wild is not an information package. There is very little information in terms of data in the package. It is a "how-to" package, so that local organizations can make that initial contact with teachers through their workshops, provide the information that is applicable in a local area, and have teachers treat it. You can shape it; it is adaptable to a local area in that respect.

(Discussion follows on next page.)

Summary of discussion

N. Gaelick (Canadian Wildlife Federation) explained that there would be two volumes of materials--one for the elementary level (1 to 6) and one for the secondary level (7 and up). They were looking at something under $5 per book, depending on quantity. Added to that would be the cost of sending staff to the CWF workshops to be trained in the delivery of it. His target date was October, the reason being that it had started out as an American project and then had become international. One of the functions that he had served was to Canadianize the material; all examples in it would be Canadian, and it would be printed in Canada. He thought that teachers and other people, by and large, appreciated that aspect of it. It would be available in both official languages.

J.Y. Hickman (Canadian Wildlife Federation) asked if the material could be obtained without going through the workshop process.

Mr. Gaelick replied that teachers would have to participate in at least a 1-day workshop in order to obtain the material. He added that he was not naive enough to think that, when teachers got hold of the material, they would not photo-copy it and pass it around, but he was hopeful too that some of the philosophy that was put across at the workshop would also be passed along with the photo-copies.

D.A. Hagan (Ontario Wildlife Branch) said that this had a potential for being a very powerful educational tool, and as a parent he had certain problems with that. He mentioned a movement in the USA where certain philosophies, certain attitudes, had been promoted with this type of thing. He asked for a clear statement of the objectives of the program and asked what the CWF was trying to promote: an attitude, a change in attitude, or an understanding.

Mr. Gaelick replied that he had had two major criticisms of Project Wild over the past few months; one that it was not an anti-hunting package, and the other that it was not a pro-hunting package. The material was neutral; it would not demonstrate bias to either extreme. He added that there were approximately 10 pages of objectives included with the package, and mentioned a few headings:

(1) Appreciation of wildlife -

  (a) humans and wildlife have similar basic needs -

    (i) all forms of life depend upon water, oxygen, nutrients, etc.

(2) Human values in the wildlife resource -

  (a) to enable students to appreciate that the aesthetic and spiritual values that humans place on wildlife might vary from person to person, and culture to culture.

He said that this was not a very concise statement of objectives, but he would be happy to discuss it further.

C.R. Surrendi (independent consultant, Alberta) said that he was also a parent with very impressionable kids in school, and pointed out that with this they had something to discuss out in the open. His children brought home a lot of interesting philosophies that were not in the curriculum, that advocated things like

anti-hunting; anti-firearm ownership, etc.; very unofficial opinions of one or two teachers. He took exception to that, but pointed out that officially there was nothing he could complain about. It was better to have something like this out in the open, where everybody got a chance at it; as far as he was concerned, the current situation was intolerable.

Mr. Gaelick replied he could not claim that this would eliminate teachers' biases, because teachers were human too, and he was sure that a lot of their personal convictions were reflected in their teaching. He pointed out, however, that with Project Wild there was the workshop situation to try and develop that position of neutrality with the teacher. By just mailing or handing the material out, they did not have that opportunity. This would put them far, far ahead of anything they had done to date, he added.

G.W. Pepper (Saskatchewan Wildlife Branch) said that they were very interested in Project Wild, and one of the reasons was that they felt that the Wildlife Week package approach had not worked adequately in Saskatchewan, one of the problems being that they were not adequately reaching the teachers. The Department of Education people were very receptive to Project Wild, and it was important that this happened at an early stage. He added that if other education departments were anything like those in Saskatchewan, they were besieged by a variety of interest groups wanting to get subjects placed on the curriculum. This approach really interested their education people, but the key was to get the teachers trained.

He added that one of the things they were looking at in Saskatchewan was giving the teachers a tour of all their areas where there were spectacular wildlife viewing opportunities, or where there was intensive wildlife management going on, and coupling that tour possibly with the Project Learning Tree program. There was a similar sort of approach being used in Saskatchewan between the Department of Education and the Mining Association, where teachers were taken on a week's tour of all the different sorts of mines and mining operations; as a result, teachers had a hands-on knowledge of what mining was all about, and when they were talking about social studies or mathematics, they could use mining examples. He concluded: "We want to use wildlife examples, and if we can give those teachers a hands-on opportunity to get that gut feeling for wildlife, it will be to our benefit."

Mr. Gaelick replied that Project Wild really had a hands-on package, and there was great interest expressed by teachers dealing with handicapped or special children or native groups because of this aspect of the program; it involved kids in activities.

D. Love (World Wildlife Fund Canada) congratulated the CWF, and Norm Gaelick personally, for doing a very good job in taking the initiative on Project Wild. In his opinion, Project Wild was dynamite, and the World Wildlife Fund was happy to co-operate in any way that they could. He urged all provincial agencies to do the same. For the first time, they had things that were a lot of fun and very enjoyable. He added that the consultation with WWF had been fantastic on this.

J. Robison (Alberta Trappers' Central Association) asked how the CWF had got involved with this project.

Mr. Gaelick said that he had heard about the program almost accidentally, and was fortunate enough to be given the opportunity to participate in building the

program. His initial responsibility on being seconded to CWF was to develop a program, but when he saw Project Wild and the potential for it, it would have been senseless to try and duplicate it, as the project already had probably close to $250 000 put into it, and had involved literally hundreds of experts. He told the delegates that he would contact each provincial fish and wildlife agency to get an informal commitment from them relative to their participation in the project. He needed the information to govern the number of books to be printed this fall; they would not be asking for any formal contractual arrangement. It was not an expensive project, and they were going to get their money's worth out of what little it would cost. The cost would depend on the number of teachers who could be put through a workshop in a year.

Mr. Brynaert thanked the Government of Alberta for seconding Mr. Gaelick to the CWF and making this program possible. He thanked the Task Force for looking into the CWF's mandate, and said that he had gained a lot of good ideas from the workshop on where to go in the future.

Update report

ORGANIZATION OF FEDERAL-PROVINCIAL WILDLIFE CONFERENCE
Recommendation No. 12

R. Andrews
Director of Wildlife,
Alberta Fish and Wildlife Division

Firstly, I would like to acknowledge the other members of this Task Force, Ken Brynaert and Joe Bryant. The task we were given essentially was to undertake a review of the organization of the Federal-Provincial Wildlife Conference (FPWC)--especially with a view to increasing the role of private individuals and organizations in the conference--and to propose terms of reference.

The Task Force recommends:

(1) that the FPWC be replaced by an annual "Canadian Wildlife Conference";

(2) that the Canadian Wildlife Conference be an annual meeting where wildlife issues and trends of national importance would be discussed, and where other organizations could schedule complementary meetings in order to promote the bringing together of a broad spectrum of organizations and representatives interested in wildlife;

(3) that the Canadian Wildlife Conference be sponsored by a private national conservation organization to be called the "Canadian Wildlife Management Institute"; and

(4) that the creation of the Canadian Wildlife Management Institute be promoted.

Comments

The recommendations are patterned after the North American Wildlife and Natural Resources Conference and its sponsor the Wildlife Management Institute. It is envisaged that the Canadian Wildlife Management Institute could take the form of a private corporation, incorporated under the statutes of Canada and registered as a "charity" under the tax act. Corporate shares would be broadly held by:

(1) various groups or parties interested in wildlife, such as industrial representation from agriculture, fur, forestry, mining, and petroleum;

(2) interest organizations, such as the Canadian Wildlife Federation, World Wildlife Fund Canada, and Canadian Nature Federation;

(3) professional organizations such as the Wildlife Society of Canada; and

(4) individuals.

The general objectives of the Canadian Wildlife Management Institute would be to promote the conservation of Canadian Wildlife and excellence in the practice of wildlife management. Cursory examination of the feasibility of this concept

suggests that a number of corporations may well be very receptive to such a proposal. The Wildlife Management Institute (Washington, DC) would welcome the opportunity to be of assistance. The Wildlife Society of Canada also would welcome the opportunity to participate in exploring the concept.

In closing, I would like to acknowledge the assistance of D.A. Poole, in terms of providing us with background information on the Wildlife Management Institute. I would draw to your attention that this very prestigious and very successful institute in the United States has, through sponsoring the North American Wildlife and National Resources Conference, facilitated an exchange of professional and public interest views over the years whose real impact is simply impossible ever fully to ascertain. It is not so much necessarily the formal papers or the formal agenda, but that the North American serves as an annual catalyst wherein, forgive me if I am wrong, in the neighborhood of 40 or 50 organizations now schedule complementary meetings. It brings together a wide variety of interest groups and professional associations, and the benefits of this exchange are simply indescribable.

I think that, as we go into tougher budgets and periods of harsher economic times in Canada, we are going to find quite a need to start to piggy-back, as it were, numerous meetings; or as in the example we have here with British Columbia this year, we simply are going to lose contact with key organizations.

The session is now open for discussion.

Summary of discussion

B. Tétreault (Canadian Wildlife Service) congratulated the Task Force on their excellent suggestions. On a note of caution, he suggested that "we don't change in any way the present format of the FPWC before we are sure that this is the direction that we want to take". Even if the concept that had now been presented was valid, he would have liked to have had a series of options, so that he would be in a position to evaluate the advantages and disadvantages.

R. Andrews (Alberta Fish and Wildlife Division) pointed out that at the directors' meeting prior to the conference, it was emphasized that this was simply a concept and in no way should be interpreted as a demeaning or a criticism of the FPWC or of any organizations present. It was one thing for sponsors and organizations to say that they were interested, and another thing for sufficient momentum to be generated so that an organization would come into place with a solid financial footing. This was a way down the road if, in fact, it did occur.

K.A. Brynaert (Canadian Wildlife Federation) said that he understood what Mr. Tetreault was saying, but asked what they had got. He had seen the evolution of the FPWC over the last 12 or 13 years, and what it had evolved into was greater public participation. He asked: "Who are we communicating with?" By-and-large, NGOs were communicating with themselves, he said. He realized that wildlife managers required an opportunity to get on with their business, and that their business was conducted sometime prior to, or during, what was perceived to be the FPWC. What the Task Force was suggesting was to put together a structure that was going to be much more meaningful in terms of dealing with issues. They did

not do that at the PFWC; they did not talk about wildlife problems. He felt that by transferring the responsibility to a non-governmental organization, it did give them a certain amount of control for producing something that was going to be, from his standpoint, more productive. If it was more productive from the NGOs' standpoint, then it was going to be more meaningful in terms of what wildlife managers would be able to glean from the deliberations of such a conference.

He said that it was certainly not intended, even though it might read that way in the first sentence of the recommendation, to do away with the FPWC, but to add to that dimension. Let wildlife directors conduct their meeting, and let the NGOs structure something that gave more meaningful focus to the public-interest organizations and other organizations, and so on, who could provide a more meaningful conference.

M. Hummel (World Wildlife Fund Canada) said that he also had some notes of caution. He thought it would present some financial problems to invent another effective non-governmental or private organization to sponsor the conference. He liked the system right now, where a government took the financial responsibility for hosting the conference. They should be aware that the expenses of doing that now would be thrust upon a private organization, and the Task Force expressed some confidence that funding for that would come from the corporate sector. He thought it might be difficult. Speaking personally, he thought that the real problem was the format of the meeting rather than the agency that put it on. If he had only come to give a paper to the number of people present, he would have been very inclined to fold up his paper and go home--it would not have been worth his while. The reason that he came to the FPWC was to get at the directors of wildlife, and to meet with some other wildlife professionals from across Canada.

He thought that whatever format was arrived at, it should guarantee that directors of wildlife were going to attend, and not just provide the opportunity for them to have their meetings coinciding--they had to be there. He suggested that "before we restructure the conference, we should try to analyze what actually happens." He agreed with Mr. Brynaert that a lot of the business was obviously not done during the conference, but that was fine. Everyone participated in that, and the challenge was to come up with a format that was going to command some sort of presence and interest in the general sessions, but at the same time allow people to meet and discuss other matters where they wanted to meet in sub-groups. He said that there should be a guarantee that wildlife directors were going to be there, and that members should be careful about relying on the corporate or non-governmental sector to pay for such a meeting. He could already imagine the corporate community asking why they were being asked to foot the bill for, basically, an annual meeting of the governmental directors of wildlife.

Mr. Andrews pointed out that what was envisaged as a "Canadian Wildlife Management Institute" was much broader than simply a conference. It was an evolution towards a repository, or an organization of expertise, dealing with national issues of wildlife, with perhaps less of a vested interest than the narrow confines of each specific interest group; somewhat analogous, but not completely, to the American Wildlife Management Institute. There needed to be a centre of excellence in wildlife management in Canada, somewhat unfettered from their political masters. There was a need for a national organization, staffed by recognized professional wildlife people who could speak out in the context of having such a reputation that, when they met privately with different organizations, due consideration was given to their words.

Mr. Brynaert disagreed with Mr. Hummel that wildlife directors might not attend. He felt that it would have the opposite effect. A private organization could invite fisheries, forestry, and industry to a national conference, and it was not reasonable to assume that that would occur with a federal-provincial conference. They were only dealing with one portion of the main players in terms of wildlife management. He saw this as a broadening of the spectrum, where there would be access to more people, not less.

R.C. Goulden (Manitoba Wildlife Branch) said that first of all they had to realize that, regardless of what happened, there would of necessity continue to be meetings among federal and provincial wildlife administrators at some place in Canada, just by virtue of the nature of the country and the way they were structured politically. He suggested that what they were talking about was not whether or not those meetings were going to go on, because they would. What they were really talking about was all of the private conservation groups getting together and sponsoring the development of an institute; this discussion was not directed to the directors of wildlife; it was being directed to private organizations--the shoe was on the other foot. The money would have to come from other sources, as would the impetus, initiative, drive, and all those other things that they had aplenty, he hoped, because it would require some considerable effort, initiative, drive, and money.

He said that he was not talking against the proposal; he was talking in favour of it, but he was also being very realistic. In the United States, there was a population 10 times that of Canada's and a particular sector of private industry that heavily supported the Wildlife Management Institute. He trusted that they could find that kind of support in Canada, but it would be no mean task. He reaffirmed what Mr. Andrews had explained, that the job of a wildlife management institute was not only to hold a conference once annually; if that was its main purpose, it would not work. It was his opinion that they had to have such an institute to do such things as:

(1) promote more professional wildlife management,

(2) from time to time, take issue with governments who were not managing well,

(3) be called in by governments, to analyze their organizations, their operations, and their programs,

(4) give better direction to governments, and

(5) sponsor the development of policies, programs, and special studies.

He felt that these kinds of things were being given second priority, but they were the primary drive that was going to keep the institute going; the organization of the annual conference was just part of it. He warned against assuming that just because the conference was organized by a wildlife management institute or anyone else, the participation, from time to time, would differ very much in terms of numbers than it did now. He had been at the North American conference, where the chairs were half empty and all of the deals were being made out in the hallways; that would always happen at conferences of that kind. People came to the conference not necessarily to hear the speaker at the front, but to make deals and to talk to people on the side.

Mr. Andrews asked Dan Poole to make a few comments.

D.A. Poole (Wildlife Management Institute, USA) stated that this recommendation did not emanate from his Wildlife Management Institute. People in Canada, interested in wildlife, had come to them, and had also visited others in Canada and the United States, expressing the viewpoint that there was a need in Canada for some sort of a binder to bring all wildlife interests together, and to better approach the public, the legislative side, the political side, etc. On that basis, he said, they were glad to discuss how the Wildlife Management Institute was conceived (it had been in operation since 1911); why it was conceived; how it was organized; and how it operated.

He added that the name of whatever came up, if anything came up at all, was relatively unimportant. The true challenge was to determine if there was a need for some kind of an operation, and "what you perceive it should do to better the interests of wildlife in Canada". He could not really respond with any specifics, but if there was a need, then he did not think the name was important, but that the next steps were very important: putting something together, defining its mission, and starting its operation.

Mr. Tétreault, during the discussion on recommendations, expressed concern that they should not lose what they already had before the new organization came into effect.

J.D. Roseborough (Ontario Wildlife Branch) said that there was a good deal of support for the creation of a "Canadian Wildlife Management Institute", but also a fair amount of caution among NGOs, the provinces and, he thought, the federal government regarding the goals, objectives, the potential financing, and the structure of the institute. He agreed with Mr. Tétreault that there was a lack of options available.

Mr. Andrews pointed out that this would be an independent organization that would come into fruition through certain general philosophies, but the specifics of "what it is about" were for it to decide. He did not think it was appropriate to encourage the formation of an independent NGO-sponsored organization to further wildlife conservation in Canada, and then expect private sponsors to fall in line with the conference's by-laws and objectives. It would be most difficult to find sponsors under those circumstances.

Mr. Tétreault expressed doubt that it was for the conference, as government representatives, to dictate goals, objectives, etc., for such an institute.

Mr. Goulden said that they should be apprised of the goals, etc., but not dictate them--what was wanted was more information.

G.W. Pepper (Saskatchewan Wildlife Branch) wondered what the problem really was. Was it the development of new techniques or professionalism in staffing, or simply a problem of the adequacy of the format of the Federal-Provincial Wildlife Conference? He felt that, with those questions answered, guidelines for developing an institute could be more firmly established.

(See Recommendation No. 15.)

Report

"CANADIAN WILDLIFE ADMINISTRATION"

R. Bell
Chief, Wildlife Management Division,
Northwest Territories

As you may recall, this issue of "Canadian wildlife administration" is the result of a co-operative effort between two territorial governments, the Northwest Territories and the Yukon. Early in that process it was agreed that, because of distance problems, one agency would take the lead in producing the publication and we would then share the costs. As a result, the Northwest Territories Conservation Education Section, under the leadership of Ed Hall, produced the publication. We are quite willing to take full responsibility for any errors and inaccuracies that have, almost inevitably, crept in.

Without going into details, I would like to make some comments regarding our view of the publication's usefulness. It should be obvious that since we, and the Yukon, have devoted a fair amount of money and manpower to the project, we are convinced that it is very worthwhile. In fact, this publication, in our view, is one of the very few real opportunities where we can show-case Canada's wildlife programs. Given current national and international interest in wildlife, it seems to us that it provides a forum which must continue to be available to us.

If the publication does face an uncertain future, it seems to us that it is because we may have lost sight of its purpose, or have differing views of that purpose. Our experience this year in producing this issue has been useful in that it has forced us to look at the publication in some detail. We have come to believe that it is an effort that the Federal-Provincial Wildlife Conference should continue to support in the most vigorous manner that it can. That will be our agency's attitude in the next few years, and we are tabling a recommendation to that effect at this conference.

Report (program highlights)

ALBERTA FISH AND WILDLIFE DIVISION

Fish and wildlife policy

In October 1982, a new "Fish and wildlife policy for Alberta" was adopted and published. The policy provides direction respecting the government's responsibility to the resource, and how society may benefit through its use.

Resource plan

Another new document, a "Fish and wildlife resource plan for Alberta", is nearly completed, which establishes use, population, and habitat goals for the year 2000. This plan sets out where Alberta is today respecting fish and wildlife populations, their habitats, and their use, and examines what today's situation means in terms of the past and the future. The future is examined in terms of what the implications are if present trends continue, or if, through management, the same experience that people are enjoying today is provided.

Wildlife Act

A new Wildlife Act is being prepared to enable the implementation of the wildlife policy. It is anticipated that the new act will be introduced in the fall session of the legislature.

Wetlands for tomorrow

Alberta and Ducks Unlimited Canada signed a major wetlands conservation agreement in June 1982 (see Fig. 1). The agreement spans 10 years, with 5-year extensions if mutually agreed to. The intent is to undertake joint development of 20 "key wetlands" that have special values and management potential. Ducks Unlimited Canada will bear most of the capital construction costs, and Alberta will secure the land base, including acquiring private land.

(Figure 1 appears on the next page.)

FIGURE 1 Weasel Lake, original site selected

Report (program highlights)

BRITISH COLUMBIA FISH AND WILDLIFE BRANCH

Selkirk caribou

A small isolated herd of woodland caribou (Rangifer tarandus caribou) inhabits the Selkirk range in southern British Columbia and adjacent areas of Washington and Idaho. This population of at least 23 animals is the only remaining herd utilizing the conterminous United States, and has been declared endangered by the US Fish and Wildlife Service.

A co-operative study is underway to identify essential habitat. Three caribou have been captured and fitted with radio-telemetry collars to assist in this work.

Caribou--old growth

A joint Ministry of Environment/Ministry of Forests Task Force is addressing the conflict between meeting timber harvest levels and maintaining woodland caribou in the Quesnel-Shuswap Highlands of central British Columbia. These areas are believed to be essential for maintaining woodland caribou, and also represent potential sources of old-growth timber for existing lumber mills.

Kootenay bighorn die-off

In December 1981, bighorns were found to be dying in the southeast portion of British Columbia, where domestic sheep and bighorn utilized the same area. The cause of death was lungworm-pneumonia. The first animals to die were in good body condition. Losses of bighorns continued with animals in poor condition in the spring, and spread to ranges north of the original site.

Animals have died in both British Columbia and Alberta, some with only light lungworm infestations. Competition with elk and stress may have been factors in some areas. A co-operative program has been set up to examine losses and develop a co-ordinated research program.

Wolf control

Wolf control was carried out through 1982 on a reactive basis to protect livestock owners from unacceptable levels of losses. Control is site-specific to remove problem individuals or packs in response to confirmed complaints. Methods include ground and aerial shooting, trapping, and use of single, lethal-dosage poison (Compound 1080) baits.

Wolves were also controlled in two areas on Vancouver Island:

(1) to provide information on the impact of wolf predation on deer, and the feasibility of temporary reduction of wolves to reverse deer population declines, and

(2) to protect an on-going deer/habitat research project.

In one limited area of northern British Columbia, wolves were controlled to research the potential for enhancement of wild ungulate populations. Preliminary results indicate significant increases in carryovers of moose, mountain sheep, and caribou.

New Wildlife Act

A completely rewritten Wildlife Act came into effect on 1 August 1982. Some features are:

- Habitat acquisition, protection, and management are accented.
- The Minister may enter into agreements with anyone to further the above ends.
- The Habitat Conservation Fund is reaffirmed.
- Sections dealing with licence issuance, youth licences, and actions against licencees for infractions are considerably expanded.
- Penalties are increased.
- Interfering with persons lawfully engaged in hunting, fishing, trapping, or guiding is made an offence, as is damaging or interfering with lawfully set traps.
- Provisions governing guiding are more comprehensive.

Non-game biologist

A non-game biologist position has been created to establish programs to further the enhancement and public enjoyment of those non-game wildlife species that can be managed to a significant degree.

Tooth return program

Sex and age classification of moose, elk, and deer harvested in British Columbia is being facilitated by a harvest data card and tooth return program. Hunters receive a post-paid envelope with their species licence or limited entry authorization. The envelope bears instructions on tooth removal and a request for basic details of the hunt. Hunters returning a tooth and the requested information receive a jacket crest in acknowledgement, and are informed of the age of the animal they have taken.

Permanent hunter's number

The hunters' licensing system was computerized in 1982 as an integral part of upgrading wildlife data systems. Each sportsman who qualifies to purchase a British Columbia resident hunting licence is now assigned a permanent hunter's

number, issued only through government agents or regional Fish and Wildlife offices. Previous possession of a valid hunting licence after the applicant's 14th birthday, or graduation from the "Conservation outdoor recreation education" program are prerequisite. The number, proof that the individual has fulfilled legal requirements for training or experience, simplifies issuing resident hunting licences for both the hunter and the licence issuer. Replacement of lost licences is simplified also, and considerable savings are being made through the elimination of clerical work formerly involved in reproducing all the details of a hunter's name, address, and identifying features each time he was involved in ministry records.

Limited entry hunting

Limited entry hunting has been used since 1974 to closely regulate the number of hunters operating in specific areas, and the number of animals harvested, in situations where normal hunting activity could not be allowed because of low populations of the hunted species. More recently, limited entry has also been employed to direct harvests to certain classes of animals to correct sex/age imbalances.

The number of limited entry authorizations made available has increased from 165 in 1974 to 17 709 for the 1983-84 season. Applications for limited entry hunts have increased from 163 in 1974 to an anticipated 50 000 this year. The authorizations available for each hunt are assigned through a random draw, computerized in 1980.

Wild fur management

In April 1982, the Hon. Stephen Rogers, Minister of Environment, announced appointment of a four-member Trapping Advisory Committee. The committee's objectives are to ensure that humane trapping initiatives are implemented, and that humane traps displace undesirable traps over a 5-year period in a technically and socially sound way. The committee's duties include recommending trapping regulation changes to the Minister and administering a Trappers' Assistance Program for humane-trap purchases.

A new wild fur data system will be operating provincially by July 1983. The system will provide detailed records and information easily collected and assessed. Benefits include reduced time and cost to process trapline registrations, and better information for local and provincial wild fur-bearer management. The system will also create a historical data base which will include the fur-bearer harvest by trapline, wildlife management unit, administrative region, and province.

Integrated wildlife and intensive forestry research (IWIFR)

A 5-year research program focusing on the effects of intensive forestry on the wildlife of Vancouver Island began in 1980. The $1.6 million IWIFR program is jointly funded by the ministries of Environment and Forests. On the island, old-growth forests are being replaced by managed or immature tree stands. With this change come intensive silvicultural practices such as thinning and fertilization, with impacts on wildlife not well known. In August 1980, a technical

working group was formed with three members from each ministry, and one representative each from the Council of Forest Industries and the conservation-concerned public. Their research program addresses three major questions:

(1) What are the impacts of intensive silvicultural practices and regimes on wildlife habitat?

(2) What are the responses of wildlife to these habitat alterations?

(3) How should the information on these impacts and responses be organized in a useful way?

More specifically, on-going field research is concentrated on deer and elk habitat in intensively managed, second-growth stands in the Nanaimo River area and in the Sayward Provincial Forest.

Coastal grizzly bear study

Historically, declines in grizzly bear populations have followed logging in British Columbia's coastal watersheds. Whether the cause has been habitat change or excessive harvest, or both, is not known. In April 1982, 5 years of field work began in the Kimsquit watershed, north of Bella Coola, to gather the information needed to ensure the long-term welfare of grizzlies in the coastal forests. Objectives of the project, planned co-operatively with the Ministry of Forests, are:

(1) to determine seasonal habitat requirements of coastal grizzlies;

(2) to evaluate the effects of forest practices on coastal grizzlies in the absence of hunting;

(3) to identify population characteristics of coastal grizzlies.

Wildlife habitat handbook

The ministries of Environment, Forests, and Provincial Secretary, and the Faculty of Forestry, University of BC, are co-operating to develop wildlife habitat handbooks for British Columbia's forests and rangelands. The handbooks will incorporate the best existing knowledge of wildlife habitat requirements, and how forest and range activities affect them, and will be designed to facilitate decision-making by forest and wildlife managers by enabling them more readily to assess the consequences of their proposed actions.

Report (program highlights)

MANITOBA WILDLIFE BRANCH

In 1982-83, Manitoba saw significant advances in the areas of wildlife education, caribou management, and sport-hunting programs. The year also saw the completion of a 5-year report on wildlife, which was tabled before the provincial legislature. The report, now required under the provisions of the Wildlife Act, summarizes the history and status of Manitoba's wildlife resource, reports on the progress of present management programs, and provides an insight into wildlife strategies for the future. The document will be a valuable aid to resource planning in Manitoba, and may also be of use to other provincial and federal agencies.

Wildlife extension

Again, last year, the Wildlife Branch initiated major thrusts towards increasing the public's awareness of the wildlife resource in conjunction with National Wildlife Week. Manitoba's theme for this year, "What wildlife needs to survive", was the subject of the annual poster contest, and focused on the critical condition of wildlife habitat in our province.

Also in conjunction with National Wildlife Week, the branch stepped up its drive to promote the wild fur industry in Manitoba through a dynamic "Trapping heritage" exposition. This display, exhibited at shopping malls in our two major centres, Winnipeg and Brandon, acquainted the public with our fur-bearing animals, humane trapping techniques, and the economic and social benefits derived from the wild fur industry.

The year also saw the groundwork laid for an ambitious wildlife awards program. The program will recognize personal commitment to the wildlife resource through the presentation of handsome plaques and scrolls to selected Manitobans for exceptional accomplishments and dedication to wildlife conservation.

With the incorporation of the red-sided garter snake dens into the Narcisse Wildlife Management Area (WMA) in 1982, a new interpretative endeavour was launched. Interpretative planning for the world-renowned, garter-snake hibernacula is underway, and the interest expressed in the pits by the public and the media is warranting a full-scale interpretative program.

Interpretative facilities at Oak Hammock Marsh WMA received a shot in the arm with major improvements to roadways and parking facilities, and the construction of an impressive observation mound at the marsh edge. From this mound and the surrounding dykes, upwards of 35 000 visitors witnessed staging and nesting waterfowl, and migrating shorebirds and songbirds throughout the year. Branch staff expounded the significance of the marsh through guided tours and a promotional display at the 9-day Red River Exhibition in Winnipeg.

Moose hunters were again offered the opportunity to perfect their hunting skills at a "Moose hunters' seminar", an annual event co-sponsored by the branch, the Manitoba Wildlife Federation, and a brewery. The same opportunity was extended in September 1982 to waterfowl hunters at the first annual "Waterfowl hunters' seminar". The informative 2-day session focused on the management of waterfowl

and their habitat, clarified and rationalized hunting regulations, and afforded 40 hunters an opportunity to sharpen their waterfowl identification and hunting techniques.

Hunting programs

Sport-hunting programs provided some 82 000 Manitobans with upwards of 535 000 person-days of recreation over the past year. With the opportunity to hunt a wide variety of species, including wild turkey, white-tailed deer, black bear, and moose to name only a few, residents and non-residents reaped a harvest of almost 30 000 big-game animals and over 800 000 game birds.

A dramatic increase in demand for black-bear hunting and bow-hunting over the past decade prompted the branch to institute special and extended bear and bow-hunting seasons.

A new dimension in hunting unfolded in Manitoba last year with the completion of a regulation governing the use of dogs for hunting. The regulation authorizes individuals to use dogs to pursue but not kill racoons at night, and to hold field trials using pheasants.

Habitat management

Perhaps the most important facet of the wildlife habitat program in Manitoba is the on-going effort to secure the land base. Designation by order-in-council of valuable Crown land habitat as WMAs has to date provided formal protection to 48 such areas totalling 2 941 000 ha. These areas are designed to ensure wildlife priority in land-use planning and management, and to facilitate people's use of the wildlife resource. During the past year, staff have negotiated with numerous government departments and municipal and local government district councils on a proposal to establish a further 29 400 ha of WMAs.

Departmental staff are continuing to investigate a variety of alternatives to protect wildlife habitat on private land, including easements, land leases, property-tax rebates, and paid hunting systems. Alternative funding methods are also being reviewed, including habitat stamps, licence surcharges, income-tax check-offs, and voluntary donations. The Wildlife Branch is also developing a wildlife habitat bequeathment program to promote the donation of lands for wildlife by landowners.

Two major habitat inventories have been initiated using computer-analyzed Landsat satellite data. A methodology for monitoring the status of wooded cover over Manitoba's white-tailed deer range has been developed and is presently being initiated. A moose habitat inventory is also underway within the 233 100-km^2 Northern Flood Agreement Area situated along the Nelson River in northern Manitoba. The intent of this project is to provide accurate habitat base data upon which stratified aerial surveys can be conducted during the next two winters.

With respect to wetland management, preliminary improvements were made to the Oak Hammock Marsh WMA water drainage system. A design plan to optimize water regulation is being prepared.

Big-game management

The demand by licensed hunters and Treaty Indians for elk and moose continued to tax supply. Towards alleviating pressure on moose and elk populations, consultation with Treaty Indian bands to enlighten them as to the implications of their hunting continued. Staff met with 10 Indian bands and some tribal councils to explain moose management principles, often with the aid of a computer model. As well, the branch continued to maintain rigid control over moose hunting by non-resident aliens, and directed this type of hunting away from areas hunted by residents.

Fur management

Anti-fur campaigns aimed at destroying Canada's international fur markets became the prime focus of concern for both the Wildlife Branch and the Manitoba Registered Trappers' Association (MRTA). Close contact has been established with trappers and the private sector; action is underway to counter anti-fur propaganda wherever it surfaces. The sealing debacle is adequate evidence of the significant danger posed to the fur industry by "anti" campaigns, and all concerned in Manitoba are determined to prevent further detriment to a valuable industry.

Consultation with trappers towards an overhaul of the registered trapline and general fur administrative systems continued. Trappers' response in this regard has been most gratifying, and they will continue to be deeply involved in management of the provincial wild fur resources. The development and implementation of improved trapping systems continued apace, with field testing of new devices occurring throughout the province, and in fur schools held in co-operation with the MRTA to promote the new harvesting methods. Considerable staff input has been devoted to establishment of the Fur Institute of Canada, which, it is hoped, will be a reality by mid summer. Fur staff continue to deliver benefits to trappers in terms of equipment and trapline improvements under wildlife and special ARDA programs. Cost-sharing arrangements with Indian Affairs have been maintained.

Fur production in 1981-82 was considerably less than anticipated--approximately $5.9 million. Extremely poor trapping conditions throughout Manitoba, occasioned by heavy snowfalls and generally atypical weather conditions, resulted in a further decline, and it is anticipated that the 1982-83 crop will be approximately $5 million. Low prices for beaver and muskrat discouraged harvesting of these species.

Wildlife damage control

The continuing deterioration of white-tailed deer habitat in the province has precipitated the need for the development and testing of methods for repelling deer from agricultural crops, an annually increasing problem. Blood-meal spread on stacked or baled hay, and the use of strategically placed intercept feeders, have continued to prove successful. The department continued to offer assistance to farmers to construct deer-proof fences around haystack yards in particularly hard-hit or chronic problem areas. Testing of a microwave motion detector complete with sirens and strobe lights was initiated in an effort to control deer depredation to special crops, such as strawberries and sugar-beets.

Beekeepers were again offered grants of $100towards the construction of electric fences around apiaries. The fences will reduce beekeepers' losses by minimizing damage to beehives by bears, and will contribute to the reduction of damage compensation payments to beekeepers by the province, which last year approached $50 000. The maximum compensation payment to beekeepers was also raised to $7500 per claim from $5000.

Grain farmers were provided protection from marauding waterfowl through damage prevention assistance and damage compensation programs. Damage prevention and payments of compensation amounted to $450 000 in 1982.

Northern wildlife

On 3 June 1982, the Beverly-Kaminuriak Barren Ground Caribou Management Agreement was formally signed in Winnipeg by the Minister of Indian Affairs and the Minister of Environment (Canada), the Minister of Natural Resources (Northwest Territories), the Minister of Northern Saskatchewan (Saskatchewan), and the Minister of Natural Resources (Manitoba). The signing ceremony was attended by several native hunters, who endorsed the agreement through witnessing the signatures of the ministers. The agreement formally established the Beverly and Kaminuriak Caribou Management Board, which has eight native and five governmental representatives. The board met on several occasions during the past year, and a healthy and positive attitude towards caribou management prevails among the members.

The polar-bear holding facility, located in a triple quonset hut in Fort Churchill, Man., was completed and operational for the 1982 polar-bear season. Churchill is located in a natural polar-bear staging area, and each fall the bears pose a considerable threat to life and property. The concept of the facility is simple: problem bears are detained until ice forms on Hudson Bay. At that time, the bears are released and naturally leave the area. The facility contains 20 cement-block cages with barred steel doors. Four of these cages are large enough to accommodate family groups of polar bears.

Manitoba took steps to protect the nesting site of a rare visitor to Manitoba, the Ross' Gull. The gulls, native to Siberia, are now protected by a Manitoba regulation. The regulation designates the area in which the gulls nest as the Churchill Special Conservation Area, and prohibits anyone from approaching within 100 m of a Ross' Gull nest.

A management plan has been completed for the 1.7-million ha Cape Churchill WMA located east of the town of Churchill. The plan includes land-use zoning to protect habitat utilized by polar bears, geese, and caribou. It is now awaiting final departmental approval.

Wildlife Branch staff continued intensive consultation with Native Community representatives from Cross Lake, Nelson House, Norway House, Split Lake, and York Landing on co-operative wildlife management in north-central Manitoba. Emphasis is being placed on moose management, waterfowl surveys, and increased awareness of Wildlife Branch projects and management techniques through regular meetings with the Northern Flood Agreement Wildlife Advisory Board.

Report (program highlights)

NEWFOUNDLAND AND LABORADOR WILDLIFE DIVISION

Wilderness and ecological reserves programs

An 11-member advisory council, which reports to Cabinet, has over 20 areas in various stages of review. Among them are the 850-km^2 Avalon Wilderness Area; five internationally significant seabird colonies; the world's oldest Metazoan fossil site; a number of rich alluvial areas, which are rare in this province; the Main River, a 50-km long wild river considered among the best in Canada; a new 3500-km^2 wilderness area known as the Bay du Nord; a site for the conservation of pine marten, rare in Newfoundland; and a number of relict red-pine stands.

Hunters' education

A voluntary hunters' safety course has existed for a number of years. In 1982, a revitalization and reconstruction of this course began with the compilation of a new manual. While not down-playing firearms use, the course has been expanded from 12 to 18 hours and now emphasizes wildlife management and hunters' ethics. The entire program has been renamed "hunters' education" (HE) rather than "hunters' safety" to reflect its broadened approach.

The program will rely for delivery primarily on volunteer instructors, who will be recruited through a series of training schools beginning in 1983. This recruitment will aim at school-teachers who are also experienced hunters. There are two reasons for this:

(1) their teaching skills will already be developed, and

(2) they will help bring the course as close as possible to the school system.

With sanctioning by the Department of Education, it is anticipated that the HE course will become a routine extra-curricular course for high-school students.

The long-term target for the program is to train 3000+ students per year by 1985. The course and supplementary material are offered at no charge to participants.

Wildlife education in schools

If wildlife education in schools is based primarily on guest visits by Wildlife Division personnel, the impact on students is at best short-term and highly variable in quality and quantity, depending on the personal interests of the staff member. Nonetheless, this has been the primary thrust of Newfoundland and Labrador's school program up until this year. Now the first goal of our "Information and education (I and E) program" is to get wildlife education integrated with the school curricula, so that content is consistent, teachers are primarily responsible for delivery, and Wildlife Division personnel are used to highlight the material on an optional basis.

The first step along this road will be achieved in September 1983, when a new senior high-school course, "Environmental science", begins. The course focuses

locally on human use, misuse, and management of resources. The text for the course is now being written, using "case studies" as the teaching methodology. The Wildlife Division is writing one "case study" on moose and caribou management requiring about 16-20 hours of school study. Another of equal length is being written on seabirds, concentrating on the various mortality factors.

This project is viewed as having special importance, since it will ensure that wildlife education will be consistently covered with a large student population each year. Efforts to achieve a greater degree of integration with other grade levels and disciplines will continue.

Public knowledge and attitude survey

This project, funded by the Wildlife Division's I and E Branch, will be completed in the winter of 1983-84 by a graduate student at Memorial University of Newfoundland. It is based on 500, 1-hour personal interviews with randomly selected adults throughout the province. It examines their personal values, perceptions, and knowledge on a variety of wildlife and environmental matters. The report from this work will provide an important part of the foundation for our "I and E program", since a knowledge of the audience is critical to any communications plan.

Anti-poaching campaign

It is difficult to quantify precisely the level of poaching. However, it is believed to be a significant population-limiting factor for moose and caribou in some areas of the province. At the same time, there is growing evidence that many people are against poaching and are prepared to do something about it. It has never been very simple for a citizen to report violations, and so this year a 24-hour telephone hot-line will be established in one area to test its effectiveness. The project has two goals:

(1) to convict poachers and

(2) to prevent poachers from operating.

The first is self-evident, but the second is less so. Participants (all big-game licensees and others who choose to opt in) will be issued bumper stickers that promote the program. The theory is that poachers' activities will be somewhat inhibited if they are aware that a neighbour might report them.

This kind of project has been implemented successfully in other areas, so it is time to test it in Newfoundland.

Protection

On 3 December 1982, Royal assent was given to amendments to the Wild Life Act, which greatly increased penalties for offences involving big game.

The new penalties are: for a first offence, a sentence of not less than $1000 or more than $5000, or not less than 1 month or more than 6 months; for a second offence within 5 years, imprisonment for not less than 1 month or more than 6

months, and a fine of not less than $3000 or more than $10 000. The amended act also calls for forfeiture of firearms, meat, and vehicles.

The increase in fines for poaching big game is part of a broader initiative to reduce the rate of poaching, which is becoming critical in some areas.

Field studies

Significant on-going field studies are listed below:

(1) Population ecology of the George River caribou herd in northern Labrador. The project will be focusing on calf mortality during 1983-84.

(2) Grey River Caribou/Upper Salmon Hydro-electric Project. This environmental impact study is revealing important habitat preferences of the herd that appear to be compromised by the hydro project. One of the significant findings of the study is that black bears appear to be an important predator, along with lynx. Work on caribou/black-bear relationships is being intensified.

(3) Arctic hare population ecology. This species is not well researched anywhere in Canada. In Newfoundland, where it reaches the southern extremity of its range, work began in 1981 to establish some of the basic biology of this uncommon and restricted mammal.

(4) Pine marten/logging interaction. Pine marten, which have a highly restricted Newfoundland distribution, are caught in a resource conflict involving a major pulp-and-paper company's desire to log what may be the marten's most important habitat. The study is to help determine to what degree logging and marten can mix in the Newfoundland ecosystem.

Report (program highlights)

NORTHWEST TERRITORIES WILDLIFE SERVICE

Caribou Management Board

The Beverly/Kaminuriak Caribou Management Board was officially formed in June 1982. The board consists of members from the communities and governments of Saskatchewan, Manitoba, and the Northwest Territories, with Department of Indian Affairs and Northern Development (DIAND) and CWS agencies. The goals are to implement school and public awareness programs and to draft a management plan. The major items on the 1983 agendas have been fire, caribou protection measures, predators, and survey results and techniques.

Caribou protection measures

A 5-year review of the caribou protection measures recommended that:

(1) low-altitude flights over concentrations of calving and post-calving caribou should be discouraged;

(2) people in traditional calving and post-calving areas should be encouraged to observe the control measures, even if their activities are exempt from land-use regulations.

To ensure further protection during these seasons, land-use permit holders may be required to cease operations.

A meeting held in March 1983 by the Caribou Management Board felt that, while the restrictions were adequate for current land-use operations, changes should be made for the future. The board feels that interim measures are adequate for regulating temporary land-use activities, but that calving areas should be completely protected from development.

Wildlife studies

To ensure sound wildlife management and to meet the pressures of Beaufort Sea development, the Wildlife Service is carrying out studies to gather more baseline data on polar bears, muskox, raptors, and caribou. Polar-bear tag and recapture studies, as well as satellite radio-collaring programs, are methods being used in determining distribution and population sizes.

Muskoxen surveys have just been completed north of Great Bear Lake and on the east side of Victoria Island.

Productivity studies of the Bluenose caribou herd will assist in determining if the current commercial quota of 800 animals is realistic.

Bison in the Slave River lowlands are still decreasing according to latest surveys. Proposals are being considered for reintroducing the wood bison into the area east of the Slave River. The Mackenzie bison are still a strong viable population

of pure wood bison numbering over 1000 animals. They have also expanded their range to the northwest. A management plan concerning the Mackenzie sanctuary herd is in the final stage of development. Further habitat and population studies are planned for the coming summer. Monitoring of the wood bison transplanted in the Liard Valley during 1980 is continuing. This population appears to be relatively stable, with some calf production and survival over the winter.

Bear detection and deterrent research programs are also being carried out. The 1982 program concentrated on the microwave detection units and the use of the 38 mm multi-purpose riot gun with rubber bullets. Testing of the riot gun on approximately 250 polar bears was successful. The Wildlife Service plans to conduct additional tests with detection and deterrent systems on black and grizzly bears. In addition, a training program is being started to train wildlife officers, bear monitors, and other people who work and live in bear habitat in the Northwest Territories.

Decentralization of wildlife management

One of the main concerns of the Wildlife Service in the next few years will be a decentralization program. Future wildlife management programs will have greater participation from native communities and regional organizations. An example is the allocation of quotas. Two species, muskox and polar bear, are currently hunted under a quota system, with the allocation within the community determined by local hunters' and trappers' associations.

Conservation education

Conservation education was identified as an important departmental objective in 1982. New positions are being created in the five regions, and projects include the production of 1-minute TV spots, two caribou films, a book on caribou, and various other publications.

Land-use planning

In the Northwest Territories, non-renewable resource development has increased rapidly over the past few years, emphasizing the need for careful land and resource use decisions.

The Department of Renewable Resources has represented the territorial government's land-use planning interests through negotiations with the federal government and the native organizations, including Cope, ITC, and Dene/Métis. An informal agreement has been reached on the principles that should guide a land-use planning process in the Northwest Territories. Further discussions are on-going to put in place a workable structure and process to conduct land-use planning.

In one of the first-priority areas like the Beaufort Sea - Mackenzie Delta area, land-use planning will seek to:

(1) anticipate and make appropriate provisions for future events and circumstances;

(2) allocate land and resources to their optimum uses as determined by land-use policy goals and priorities;

(3) resolve or minimize competing demands or conflicts relating to the use of land and resources;

(4) provide a common framework of objectives and guidelines for all programs and activities relating to land and resource management, disposition, and use; and facilitate the efficient, effective, and harmonious conduct of such programs and activities where they are consistent with land-use goals, priorities, and objectives;

(5) secure the provision of such infrastructures or capital works as are required to achieve land-use goals and objectives.

Land-use planning is a most important tool for renewable resources management.

Report (program highlights)

ONTARIO WILDLIFE BRANCH

Moose management and research

Implementation of the new moose-management program is to be completed in 1983, with initiation of a selective harvest system. This system is based upon allocation of bull/calf, cow/calf, or calf hunting opportunities to residents in a draw by wildlife management unit (WMU), and to non-residents through tourist outfitters.

In our research into the effects of the winter tick, we made significant new findings about raising captive moose: 18 calves were raised out of 18 captured in 1982-83.

Deer management

Ontario's deer herd is undergoing a sharp upswing in numbers, following implementation of a new management program, and coincident with an apparent succession of mild winters. Road collisions have increased by about 30% in the south end of the shield; deer are re-occupying yards they have not used for many years and, most importantly, people are seeing more deer.

Important features of the management program are a selective harvest system that provides protection to a portion of the antler-less segment of the herd, and habitat improvement in conjunction with some supplementary feeding.

Black-bear research and management

The development of a management strategy is to be well advanced by 1983-84. We are fortunate in having data to examine from an Ontario black-bear research program, with modelling providing very interesting and new insights into bear population dynamics.

Non-game management

One of the most popular wildlife residents of Ontario is a male Peregrine Falcon, code-named 1P9, and otherwise known to many as "Whitney". He was one of the four peregrines released in 1981 at the Whitney Block Tower in Toronto, and he assumed control of Queen's Park airspace in 1982 and 1983. We are planning releases from a second Toronto site, outside of Whitney's sphere of influence.

We are also in the process of Trumpeter Swan restoration. Both restoration programs have been undertaken in co-operation with CWS and the Alberta government.

Small game and waterfowl

Greater participation of interest groups will be sought in small-game and waterfowl management over the next few years. An example of an early positive result

was the signing in April 1983 of an agreement between Ducks Unlimited and Ontario for management of waterfowl habitat.

Wetlands management

A wetlands evaluation technique was developed for southern Ontario, in co-operation with CWS. The evaluation, an essential technique in wetlands management, is to get underway in 1983.

Hunters' training

New features are being added to the Ontario hunters' training regulations on 1 July 1983:

- if a person living in Ontario has not had a resident's hunting licence since 1 January 1968, and wants one, that person will have to pass the Ontario hunting licence examination, even if he or she has a hunting licence from another province or country;

- if a person was born after 31 December 1954, and has had no hunting licence, he/she will have to complete the Ontario hunters' training course before applying for an examination;

- a resident who has had a hunting licence or a hunter safety certificate issued in any other jurisdiction after 1 January 1968, was born after 31 December 1954, and fails the examination, must complete the Ontario hunters' training course, if not previously taken, before re-applying for an examination.

New regulations promote humane trapping

The use of body-gripping traps such as the leg-hold trap has been restricted to licensed trappers and farmers protecting their property. In 1982, other provisions were made to prohibit such practices as use of hooks or sharpened devices, use of spring poles except with a killing trap, use of dead-falls, or setting leg-hold traps in a tree or on a pole.

In 1983, additional provisions were made to eliminate use of traps with teeth or serrations, to limit to drowning sets the use of leg-hold traps for trapping mink, beaver, and otter; to limit the length of a leg-hold trap chain to 16 cm; and to limit the size of leg-hold traps on land and in water.

Bears may be trapped only with the use of a foot snare or box/culvert trap, which eliminates use of bear leg-hold traps and neck snares for bears.

In designated parts of Ontario, only body-gripping traps of less than 21 cm will be permitted.

Changes were made with sufficient notification so that trappers could gradually change equipment and techniques. In fact, trappers proposed many of the changes.

Report (program highlights)

PRINCE EDWARD ISLAND FISH AND WILDLIFE DIVISION

Activities of the Fish and Wildlife Division are directed at the conservation and protection of the province's wildlife and sport-fish resources. Management and enforcement are co-ordinated with a variety of agencies, including the provincial departmental divisions of Forestry and Highways, the federal departments of Environment and Fisheries and Oceans, and non-governmental agencies such as Ducks Unlimited Canada and the provincial affiliate of the Canadian Wildlife Federation, the PEI Wildlife Federation.

Licensing

Annually, the division licenses approximately 13 000 resident and 1500 non-resident anglers, 5700 resident and 500 non-resident hunters, and 500 senior and 125 junior trappers. With the exception of trapping, these figures do not represent true participation, as farmers, commercial fishermen, their helpers and dependents, and those under 16 years of age are exempt from the licensing requirement.

In 1983, a new licence for Atlantic salmon angling was introduced. All those wishing to participate in Atlantic salmon sport fishing in 1983 are required to have an Atlantic salmon permit, in addition to their trout licence (if required). Prior to 1983, anglers could fish for brook and rainbow trout and Atlantic salmon under the one permit. With this change, we anticipate to assess more accurately the true participation and interest in this fishery, and assess more fully the public's view of the co-operative federal-provincial Atlantic salmon enhancement program.

Sport fisheries

The water level at a popular angling site was re-established with the construction of a new control structure and fishway at MacPherson's Pond, Flat River. Construction was carried out in co-operation with Ducks Unlimited.

The division's on-going program to monitor the upstream movement of anadromous fish species through fishways in the province was conducted at six sites in 1982, and will involve a minimum of four sites in 1983. This program provides valued information on the use and timing of upstream migration by both sport and commercial fish species.

In 1982, pH in O'Keefe Lake, a lake annually stocked with rainbow trout, was modified with the application of agricultural limestone. Prior to application, pH was recorded at 4.2, and this reading had risen to 6.8 after application. Monitoring to date has indicated that this limestone application is proving effective in maintaining a desired pH level. Stocked rainbows were found to have little, if any, survival in 4.2 pH water; after application, few losses were observed. During 1983, pHs will continue to be monitored.

In co-operation with the PEI Wildlife Federation, the division provided supervision and direction to six different crews involved in stream improvement,

sponsored under the federal government's Summer Youth Development and Winter Works programs.

Waterfowl

Development and maintenance of wetlands for public use and the improvement of habitat for aquatic wildlife continued in 1982. The contribution by Ducks Unlimited to this program since 1970 has resulted in development and improvement on 55 individual marshes, which involved 1598 ha. As well, 6.3 k of channels have been created via level ditching. This co-operative development of additional waterfowl habitat is planned for 1983.

The completion of a wetland inventory for the province in 1982 culminated 3 years of a co-operative effort between the Fish and Wildlife Division, CWS, and Ducks Unlimited. Using the "Golet wetland classification", all wetlands in the province have been assigned a score for their value to wildlife production.

With this wetland classification, the Division will be conducting a waterfowl breeding-pair and brood survey in co-operation with CWS. This survey will be conducted over a 5-year period to gain needed information on the contribution of the various wetland categories to waterfowl production, commencing in 1983.

A study to determine the rate of decline in productivity of four fresh-water impoundments continued in 1982. This study was initiated in 1979 and will conclude in 1983. Information from the study will be used to determine the optimum draw-down schedule to achieve maximum productivity for PEI wetlands.

During the fall of 1982, the division conducted an inventory of the Canada Goose population in the province. This is an annual survey conducted in co-operation with the United States Fish and Wildlife Service. As well, a banding program for spring and fall migrant geese was initiated in the spring of 1983. This is a co-operative program between CWS and the division.

Due to unseasonable weather, resulting in a considerable amount of open water inland, the annual mid winter waterfowl survey was not conducted. As with the Canada Goose survey, this is an annual survey carried out in co-operation with the other Atlantic Flyway provinces and states to determine a post-hunting season inventory of wintering waterfowl.

Fur-bearers

Annually, the division monitors the harvest for all wild fur within the province. This harvest was valued at approximately $250 000 to Island trappers in 1980-81, but due to a drop in fur prices, fell to approximately $225 000 in 1981-82. The principal species harvested in the province include muskrat, racoon, fox, mink, and beaver.

In an attempt to improve humane harvesting methods and derive the best possible value for raw fur shipped, the division conducts trappers' education courses annually in co-operation with the Trappers' Association.

From a species management viewpoint, the division annually collects sex, age, and reproductive data for all beaver harvested. This information is used in conjunction with the aerial census of active colonies in setting season dates and harvest levels.

In the field of research, Rosemary Curry carried out a study into the status of wild fox (red, silver, cross) in the province, which also resulted in her receiving a Master of Science degree in May 1983.

Upland game

Annually, the division conducts a game harvest survey. This survey provides the division with harvest estimates for such species as snowshoe hare, Ruffed Grouse, and Gray Partridge. As well, the reproductive success of Ruffed Grouse is measured by analysis of wings and tails forwarded to the division by selected hunters, while the status of Gray Partridge populations is determined by winter covey counts.

In a continuing attempt to establish viable Ring-necked Pheasant populations in the wild, a limited number of Korean Ring-necked Pheasants were released into selected areas of the province in the fall of 1982. This program will be continued in 1983, but expanded to involve a limited number of 4-H members in a pheasant chick raise-and-release program, similar to Alberta's program (described in the 1982 edition of "Canadian wildlife administration").

In co-operation with the Forestry Division of the provincial Department of Energy and Forestry, the division is presently formulating management plans for its Crown-land holdings in selected areas of the province. These areas are forested, and will be managed in such a way as to effectively harvest the wood resource, while providing public access and improving wildlife production (both game and non-game).

Non-game birds

For a number of years, the division has been involved in the banding of young of birds-of-prey. In 1982, 24 Osprey and four Bald Eagle young were banded. The Osprey is common in the province, while the Bald Eagle is rare.

The total number of Osprey banded to date stands at 104, from which bands have been recovered from two birds. One recovery was made in the Dominican Republic, while the other was removed from a bird electrocuted in Nova Scotia.

Hunters' safety

To date, the province's Firearm Safety Program is voluntary, but this status will change in 1984 when all new hunters, and those 16 years-of-age and under, will be required to successfully complete a firearm safety course before being permitted to carry a firearm afield. This change is a result of new legislation introduced at the spring 1983 sitting of the Legislature.

Report (Program highlights)

SASKATCHEWAN WILDLIFE BRANCH

In 1982, a number of challenges to the wildlife resource necessitated new branch initiatives.

Wildlife policy

A major initiative undertaken by the branch as a whole was to develop a new wildlife policy for the 1980s. The policy identified the major problems facing the wildlife resource, the most important causes of the problems, the objectives, and the general approaches to be used in resolving the problems. Action plans and strategies are now being developed to implement the policy once Cabinet approval is obtained.

Forest road closures

A proliferation of forest roads has resulted in vastly improved hunters' access to moose populations. To control more closely the sport-hunter and Treaty Indian impacts on moose harvests, the Wildlife Branch initiated a pilot road-closure program. Through a combination of creating game preserves along major forest haul-roads, physically closing unwanted secondary forest roads, and restricting use of all-terrain vehicles, hunters' impacts on moose will be more closely controlled.

Barren-ground caribou management

The serious long-term decline of northern caribou herds has resulted in formation of a multi-jurisdictional Caribou Management Board. Saskatchewan, along with adjoining jurisdictions and caribou users' groups, is a member of the board. The Wildlife Branch, along with wildlife personnel from Northwest Territories, Manitoba, and CWS, is providing technical assistance to the caribou management program.

Wildlife information and education

The need to improve the public's awareness and understanding of wildlife and wildlife management programs was aggressively addressed in 1982. Through co-operative efforts with various film-makers and media agencies, 2 half-hour films on moose management were completed, along with several shorter video features for television. A biologist's column, entitled "Regarding wildlife", has been well received in the weekly newspapers throughout rural Saskatchewan.

Wildlife population management

A succession of mild winters has resulted in relatively stable big-game populations. Provincial harvests of big game were generally on a par with past years for white-tailed deer, moose, and elk, with increases shown in mule deer, pronghorn

antelope and bear. Bird populations showed some recovery from the 2 years of serious drought conditions. Rapid destruction of critical white-tailed deer habitat and heavy Indian hunting of moose, elk, and deer are causing serious concern regarding long-term population maintenance of these most important big-game species. Only a last-ditch feeding program in southeastern Saskatchewan in the winter of 1981-82 saved the white-tail hunting season. This area has suffered most from destruction of winter habitat, but still supports a high population of white-tails despite heavy hunting demand.

Wildlife habitat developments

The branch continued its role in working co-operatively with Ducks Unlimited and the Wildlife Federation to implement the Heritage Marsh Program; a program to preserve and improve the most important wetlands in Saskatchewan. Land acquisition is progressing favourably at Ponass Lake and Thunder Creek, and resolution of the waterfowl depredation problems that are associated with these developments.

Developments on wildlife lands in the Qu'Appelle Valley are nearing completion. These projects, implemented under a 10-year federal-provincial agreement, are substantially increasing wildlife-based recreational opportunity within 1 hour's drive from Regina and Moose Jaw.

Special projects and research

A wildlife management master plan was initiated for the Fort-a-la-Corne Wildlife Management Unit (WMU). The plan's development required in-depth investigation of the impacts of a hydro-electric development on wildlife along the Saskatchewan River. The study includes biophysical mapping of the 1295-km^2 WMU, and radio telemetry monitoring of the elk population. Moose, bear, deer, and fur-bearers are also under study.

In the Cumberland Delta, high moose-calf mortality has prompted a bear predation study. Black bears, the most numerous spring predator on the marshy study area, are the suspected reason for a 50% reduction of moose calves in the first 6 weeks of life each year for the past 5 years.

Wolves and beaver are other problem fur-bearers in isolated circumstances that require specialized control. A program where "problem-wildlife" trappers are employed is being initiated to remove beaver colonies that are flooding agricultural lands and wolves that develop a taste for domestic livestock.

Finally, an important objective of Saskatchewan is to achieve a 5-year agreement with CWS for waterfowl depredation prevention. Saskatchewan farmers have indicated that they are much more inclined to retain wetland habitat if they are protected from waterfowl depredation and beaver flooding.

Report (program highlights)

YUKON DEPARTMENT OF RENEWABLE RESOURCES

During 1981, the Department of Renewable Resources underwent a major reorganization. A "Wildlife Branch" in its previous form does not exist any more, in that three sections within the department now have certain wildlife responsibilities.

Enforcement, public relations, and education are being carried out through the Wildlife and Parks Services Branch; administrative and policy matters are being handled in the Policy section; and research, habitat work, and wildlife management are done in the Resource Planning and Management Branch. At about the same time, a new Wildlife Act was passed by the Yukon Legislative Assembly.

The Department of Renewable Resources is responsible for the management of terrestrial mammals and non-migratory birds. CWS complements the work through projects on waterfowl and co-operation on the Porcupine caribou herd.

Habitat and wildlife management

As far as habitat management is concerned, the Yukon faces similar problems to those of the Northwest Territories. Unlike the provinces, jurisdiction over most lands is retained by the federal government and administered by the Department of Indians Affairs and Northern Development (DIAND). Its land-use section, which is based in Whitehorse, has the responsibility of issuing land-use permits for exploration and industrial development. Such development, and the referred to jurisdictional division, can have major implications for the conservation of wildlife and habitat. Yukon government representatives serve as advisers on wildlife matters on the federal Land-Use Committee, and the Department of Renewable Resources itself has established a small habitat and land-use section.

Complicating the patchwork of overlapping federal and territorial authority is the issue of Indian rights and the Indian claims negotiations. The Yukon Act allows Indians to hunt wildlife on unoccupied Crown land, other than animals in danger of becoming extinct. Therefore, for a significant proportion of the local population, hunting regulations do not apply. Attempts are presently being made in the land-claim negotiations with Yukon Indians to have this provision and the Yukon Act rescinded in exchange for other, compensatory privileges, such as exclusive rights to certain pieces of land, preferential rights to trapping, fishing, and hunting in other areas, a guaranteed quota of certain big-game species, and a monetary settlement.

Public input into wildlife management is brought about by the Wildlife Advisory Board, created in 1980. The board members are representative of various interest groups, such as the Fish and Game Association, Trappers' Association, Outfitters' Association, and Yukon Conservation Society. The board meets at regular intervals, particularly when regulation changes are contemplated.

Present projects

Wildlife law enforcement is carried out by 10 conservation officers stationed in Whitehorse and five field offices. Wildlife management work is divided up amongst

six biologists and two technicians according to species and species groups. All these technical staff members work out of Whitehorse. Present projects include the following;

Sheep projects

- Annual inventory surveys of outfitting areas were continued. This year, surveys were conducted in the Wernecke and Hess mountains.

- Annual surveys have monitored sheep populations in resident/non-resident conflict areas.

- Annual monitoring of sheep permit hunt areas was carried out.

- Assessment was made of diseases affecting the horns of Dall sheep and the mandible.

Mountain goat projects

- Goat surveys were conducted in the Logan Mountains to properly assess current harvest levels.

- Goat surveys in the Carcross area were conducted to assess the recovery of previously over-hunted populations.

- Assessments were carried out to re-establish a goat population on White Mountain as a tourist attraction.

Moose projects

- The majority of the moose effort is directed towards a study of moose calf mortality in southwestern Yukon and on continuing surveillance of moose population dynamics and impacts of hunting in Game Management Zones (GMZ) 7, 9 and 5.

Caribou projects

- Two mountain caribou projects are underway--one is a management program involving wolf removal and subsequent monitoring within the range of the Finlayson caribou herd. The other program is late-winter range surveys within GMZ 10.

- Co-operative programs between the Yukon Territorial Government, CWS, US Fish and Wildlife Service, and Alaska Department of Fish and Game will examine juvenile mortality, calving grounds, and spring staging and movement of bulls of the Porcupine caribou herd in Northern Yukon.

Bear projects

- The demographic study of bears in the southern Ogilvie Mountains is near completion.

- A trapping program for both black and grizzly bear is being initiated in the Aishihik Lake area in southwestern Yukon.

- Various public awareness programs and publications will continue.

Bird projects

A number of birds-of-prey management projects were conducted in the Yukon. A raptor survey was carried out in the MacMillan Pass area as part of a general wildlife inventory in the area. On-going management projects included harvest experimentation, Peregrine Falcon reintroduction, and population and eggshell thickness studies of four Peregrine Falcon groups. Also, the Yukon government co-operated with the US Fish and Wildlife Service in a Bald Eagle movements study in relation to the Chilkat River wintering concentration.

Other projects

- A co-operative 2-year, CWS-Yukon government waterfowl study was continued in the MacMillan Pass area.

- Expanded studies in the Nisutlin Bay waterfowl staging area were supported by the Yukon River Basin Project.

Fur-bearers and Trapline Work

- Intensive field work on the 3-year marten study at Evelyn Creek was completed in 1982-83. Information was collected on home range, food habitats, and habitat selection.

- A study of beaver movements and population dynamics was initiated in the Lapie Lakes and Nisutlin River areas.

- Beaver and wolverine carcasses were collected and analyzed for age, sex, and productivity.

- An annual trappers' questionnaire was initiated to obtain their responses on the population levels and trends of Yukon's fur-bearers. This will be complemented by fur-bearer inventory studies (winter track-census, beaver and muskrat aerial surveys) in the Yukon River Basin and North Canol area.

- The fur-bearer section has a continued involvement in trappers' education, particularly on the subjects of humane trapping methods, pelt preparation, and fur marketing.

- The department is involved in the development and support of the Fur Institute for Canada. Humane trap development is a primary mandate of the institute.

Report

COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA

This is the sixth annual report of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) to the Federal-Provincial Wildlife Conference (FPWC). COSEWIC is mandated by this conference to determine the status in Canada of wild species whose futures may be in doubt, and to release the information upon which the declaration of status is based.

Classification actions

COSEWIC, in its prime role, assigned status to 12 species on 6 April 1983. Committee decisions, based on status reports and agreed status definitions, were as follows:

Rare:
- Blue whale
- Spotted gar
- Spotted sucker
- Silver shiner
- River redhorse
- Charlotte unarmoured stickleback
- Cooper's Hawk
- Broad beech fern
- Red-shouldered Hawk

Threatened:
- Kentucky coffee tree
- Blue ash

Endangered:
- St. Lawrence beluga

The additions this year bring the total of COSEWIC actions to 64 species, distributed as follows:

Table 1. Classifications

	Birds	Mammals (terrestrial)	Mammals (marine)	Fish	Plants	Amphibians, reptiles	Total
Rare	9	5	1	8	1	-	24
Threatened	5	2	1	-	4	-	12
Endangered	5	4	3	-	3	1	16
Extirpated	-	2	-	-	-	-	2
Not in any category	5	4	-	1	-	-	10
Total	24	17	5	9	8	1	64

A composite list of species dealt with above is given in Table 3 (see COSEWIC audit statement).

Other committee highlights

(1) The FPWC (to which COSEWIC reports) requested an audit of COSEWIC activities to date through Recommendation No. 18 of its 46th session, 1982. An audit statement of the first 5 years of COSEWIC's activities, over the signature of the Acting Chairman, has been circulated to the Eastern and Western Wildlife Directors and to members of the FPWC (and follows this report). It summarizes attendance by members, status assignments to date, a description of working methods and criteria, and estimates of expenditures by those nine members who responded within the allotted time to the Acting Chairman's request for data.

(2) COSEWIC is currently operating in its third financial phase. Originally, member jurisdictional agencies provided status reports to COSEWIC either from their own staff authors or through contracts that they funded. As this arrangement faltered, because of economic pressures, World Wildlife Fund (WWF) Canada obtained funding totalling $49 500 from the Richard Ivey Foundation, spread equally over 3 years. This money has now been completely spent or committed. As soon as it was depleted, Monte Hummel, Executive Director of WWF Canada, who had obtained the original 3-year Ivey Foundation funding, them committed WWF Canada to supplying a new 3-year funding programs from its own resources. This program, based on matching the dollars spent by jurisdictions up to specific limits of $20 000, $15 000, and $10 000 during the 3 years of the agreement, is now in its 2nd year. It is noted that during the 1st year of the agreement, jurisdictions failed to spend enough to call forth the final $1000 matching amount from WWF Canada.

(3) Relating to the foregoing, it is noted that Recommendation No. 18, FPWC (1982), part (B), requests:

> that all government jurisdictions be encouraged to contribute to the costs of preparation of COSEWIC status reports, especially since the World Wildlife Fund Canada has agreed to contribute matching funds up to a pre-established limit in 1982, 1983, and 1984.

(4) COSEWIC welcomes three new scientific Sub-committee Chairmen in the persons of Dr. Ross James, Royal Ontario Museum, birds; Dr. Erich Haber, National Museum of Natural Sciences, plants; and Dr. Robert Campbell, Department of Fisheries and Oceans, fish and marine mammals.

COSEWIC also draws attention to, and expresses thanks for, the years of effort and contributions made by the out-going Sub-committee Chairmen, who formerly held the above noted posts: Dr. Henri Ouellete, National Museums of Canada, birds; Dr. George Argus, National Museums of Canada, plants; John Loch, Department of Fisheries and Oceans, fishes.

These men presided over the difficult years when COSEWIC, having dealt with well-known, "easy" species, faced up to the problems associated with species for which very little reliable information was available.

(5) The executive and members draw the attention of the FPWC to the accomplishments of COSEWIC, a committee that has no funds of its own, but depends entirely on the contributed money, time, effort, and co-operation of scientists, jurisdictions, private groups, and individuals. Possibly the greatest accomplishment of COSEWIC is the production of scientific reports during a

time when limited budgets preclude research to verify old data or to obtain new information. In spite of this restriction, COSEWIC has managed to have an average of nearly 13 status reports accepted each year, and has an additional backlog of several times that number nearing completion or under review, and likely to be accepted during the next year or two.

(6) The attention of the FPWC is drawn to the situation whereby increasing concern for some plants has made it necessary to consider that kingdom at an earlier date than was anticipated when the committee was first mandated. The resulting Plants Sub-committee is now the front-runner in terms of status reports and other work in progress.

(7) Attention is also drawn to invertebrates, which until now have not been dealt with. Recently, COSEWIC became aware of a possibly endemic snail, Physa, living in the waters of Gatineau Park within sight of the city of Ottawa. It is seriously depleted in numbers and may be in peril. A scientific report, commissioned by the National Capital Commission, has been made available to COSEWIC subsequently. Although the FPWC has previously indicated that COSEWIC should deal with vertebrates and plants before turning to invertebrates, this particular case seems to be one that should not be ignored. There may well be others in like circumstances. COSEWIC therefore proposes to deal with such cases unless specifically instructed not to do so by the FPWC.

(8) Because of close and overlapping aspects of the conceptual bases of COSEWIC work and CITES concerns, it was agreed at the COSEWIC General Meeting, in April 1983, that scientific sub-committees of COSEWIC will examine and deal with all Canadian species that appear on CITES lists.

(9) COSEWIC further notes that, by the end of next year, the bulk of status actions will have been funded by a single non-governmental agency, WWF Canada, which has clearly indicated that it will not extend financial support beyond 1984.

Message to the 47th Federal-Provincial Wildlife Conference, 1983

Whereas:

(1) COSEWIC has completed more than 5 years of productive activity since the original call for such a body by FPWC in 1976;

(2) COSEWIC has found it necessary and desirable to add invertebrates as it did plants to its list of concerns;

(3) scientists associated with COSEWIC stress the need for a conceptually sound and consistent basis for determining the status of elements of the Canadian biotic spectrum, and the naturally interacting communities of species necessary for their survival;

(4) in national and international fora, COSEWIC represents a collectively defined Canadian commitment and performance criterion, but has been forced to rely heavily on non-governmental funding to meet agreed national objectives; and an obvious need now exists to associate fiscal responsibility with jurisdictional purview;

(5) the 1983 General Meeting of COSEWIC expressed a strong desire to increase the overall efforts and activities of the committee.

COSEWIC requests:

(1) reaffirmation of its original mandate to declare the national status of Canadian species thought to be at risk;

(2) approval of its stated intention to continue work on plants and invertebrates;

(3) commitments by appropriate responsibility centres of governments to assume the financial load of operating COSEWIC, as befits their jurisdictional responsibilities;

(4) statements from each member jurisdiction, identifying measures taken to reduce the level of concern for species under their purview that have been assigned status by COSEWIC.

COSEWIC audit statement - Recommendation No. 18

J.E. Bryant
Acting Chairman

The request

The Federal-Provincial Wildlife Conference, to which COSEWIC reports, requested an audit of COSEWIC activities to date, through Recommendation No. 18 of its 46th session, 1982, as follows:

> Whereas the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has been in operation for 5 years, and a review of its work is timely, and
>
> whereas funds for preparing COSEWIC status reports are urgently required,
>
> therefore it is recommended that:
>
> (A) the chairman of COSEWIC arrange an audit of COSEWIC activities since inception, in terms of attendance at meetings, responses to postal votes, actions decided, preparation of status reports, a financial report, etc., to be presented to a joint meeting of Eastern and Western Wildlife Directors, and
>
> (B) that all government jurisdictions be encouraged to contribute to the costs of preparation of COSEWIC status reports, especially since the World Wildlife Fund Canada has agreed to contribute matching funds up to a pre-established limit in 1982, 1983, and 1984.

Table 2. Participation and productivity

Attendance at meetings	Feasibility 24.3.77	Inaugural 27.9.77	2.5.78	23.11.78	25.4.79	24.4.80	7.4.81	6.4.82	6.4.83	Participation (%)	Status report production[a]
BC	x	x	x	x	-	x	x	x	x	89	6
Alta.	x	x	-	-	x	x	x	x	x	78	2
Sask.	x	x	x	-	x	x	x	-	-	67	4
Man.	x	-	x	x	x	x	x	x	x	89	5
Ont.	x	x	x	x	x	x	x	x	x	100	5
Que.	x	x	-	x	x	x	-	x	x	78	0
NB	x	-	-	x	-	-	-	-	-	22	0
NS	x	-	-	-	-	-	-	-	-	11	0
PEI	-	-	-	-	-	-	-	-	-	0	0
Nfld.	-	-	-	x	-	x	x	-	-	33	1
NWT	-	x	x	-	-	x	-	-	-	33	0
Yukon	-	x	x	-	-	x	-	-	-	33	0
CWS	x	x	x	x	x	x	x	x	x	100	17
Parks Canada	x	x	x	x	x	x	x	x	-	88	3
NMC	-	x	x	x	x	x	x	x	x	88	12
DFO	-	-	-	x	x	x	-	x	x	83[b]	23
CWF	x	x	x	x	x	x	x	x	x	100	0
CNF	x	x	x	x	x	x	x	x	x	100	0
WWF Canada	-	-	-	x	x	x	x	x	x	100[b]	(0)[d]
Species assigned status	0	0	19	0	13	9	5	6 (18[c])	12	64	78[e] (Total production)

[a] Status reports supplied by jurisdictions often do not identify source, whether from staff, jurisdictional contract, or sub-contractor.

[b] WWF Canada and Department of Fisheries and Oceans were original members of COSEWIC. Attendance percentage reflects participation since they became members.

[c] At the April 1982 meeting, 18 status reports were tabled, but 12 of these were temporarily withdrawn at the request of Ontario.

[d] WWF Canada has funded, directly or indirectly, approximately one half of status reports received to date by COSEWIC.

[e] Includes reports received, but to which status has not been assigned.

Audit of COSEWIC

COSEWIC welcomes this opportunity to summarize 5 years of commitment, effort, and accomplishment by its membership, most of whom participate voluntarily, in addition to their regular duties.

Structure, membership, attendance, and accomplishments

COSEWIC organized itself with an elected, rotating chairman, a permanent secretary, and sub-committees specializing in the major biological groupings. The sub-committee chairmen, plus the COSEWIC chairman and secretary, form the Executive Committee.

All provinces and territories are members, as are federal agencies (four with relevant mandates or expertise), along with three nationally based, private conservation groups, Canadian Wildlife Federation, Canadian Nature Federation, and World Wildlife Fund (WWF) Canada.

A total of nine meetings have now been held. Attendance at the annual meetings has varied: one member has never attended, and six members have attended every meeting.

To date, 64 species have been assigned status, and work on designating many more species is underway through production of status reports. Candidate lists of species have been drawn up by the specialty sub-committees. Action is initiated on species from these lists, when money, expertise and emerging priorities permit. Participation by the membership in the production of status reports and attendance at meetings, where status categories are assigned, are shown in Table 2.

Method of assigning status

The work of assigning status entails reading lengthy status reports and agreement on an appropriate designation. To prepare members for an efficient meeting, status reports are pre-circulated by mail with a ballot form which, when returned to the secretary, gives advance information to the chairman about likely status or possible disagreement. The postal ballot system is informal. The formal vote on status is taken at the general meeting, and is binding on COSEWIC.

COSEWIC operates by discussion leading to consensus. If a practical consensus cannot be achieved, the subject is held over pending new information and/or insight leading to substantial agreement. No numerical record is kept of voting procedures.

Actions decided

COSEWIC actions to date (April 1983) are shown in Table 3.

Table 3. List of species with designated status, April 1983

Birds

Species	Status
White Pelican	Threatened
Double-crested Cormorant	NIAC*
Trumpeter Swan	Rare
Ferruginous Hawk	Threatened
Gyrfalcon	NIAC
Peregrine Falcon:	
Pealei	Rare
Tundrius	Threatened
Anatum	Endangered
Greater Prairie Chicken	Endangered
Whooping Crane	Endangered
Greater Sandhill Crane	NIAC
Piping Plover	Threatened
Eskimo Curlew	Endangered
Ivory Gull	Rare
Caspian Tern	Rare
Burrowing Owl	Threatened
Great Gray Owl	Rare
Kirtland's Warbler	Endangered
Ipswich Sparrow	Rare
Ross' Gull	Rare
Red-necked Grebe	NIAC
Prairie Falcon	NIAC
Red-shouldered Hawk	Rare
Cooper's Hawk	Rare

Reptiles and amphibians

Species	Status
Leatherback turtle	Endangered

Mammals

Species	Status
Eastern Mole	Rare
Vancouver Island Marmot	Endangered
Black-tailed Prairie Dog	Rare
Fox Squirrel	NIAC
Pocket Gopher	Rare
Right Whale	Endangered
Bowhead Whale	Endangered
Swift Fox	Extirpated
Grey Fox	Rare
Grizzly Bear	NIAC
Newfoundland Marten	NIAC
Black-footed Ferret	Extirpated
Badger	NIAC

(cont'd.)

Table 3 (cont'd)

Mammals (cont'd)	
Species	Status
Sea Otter	Endangered
Eastern Cougar	Endangered
Peary Caribou	Threatened
Wood Bison	Endangered
Wolverine	Rare
Long-tailed Weasel (Prairies)	Threatened
Humpback Whale	Threatened
St. Lawrence Beluga	Endangered
Blue Whale	Rare

Fish	
Species	Status
Shortnose Sturgeon	Rare
Speckled Dace	Rare
Giant Stickleback	Rare
Blueback Herring	NIAC
Spotted Gar	Rare
Spotted Sucker	Rare
Silver Shiner	Rare
River Redhorse	Rare
Charlotte Unarmoured Stickleback	Rare

Plants	
Species	Status
Furbish's Lousewort (Pedicularis furbishiae)	Endangered
Small White Lady Slipper (Cypripedium candidum)	Endangered
Willow (Salix planifolia tyrrellii)	Threatened
Thrift (Armeria maritima interior)	Threatened
Small Whorled Pogonia (Isotria medeoloides)	Endangered
Kentucky Coffee Tree	Threatened
Blue Ash	Threatened
Broad Beech Fern	Rare

* Not in any category

Preparation of status reports from existing information

At the outset, it was agreed by the FPWC and by COSEWIC members that status would be determined on the basis of available information. To obtain new, up-to-date, or complete information through research or field work could cause years of delay, and costs well beyond any foreseeable capability of COSEWIC. Even one or two small research projects would exceed the entire yearly operating budget of COSEWIC, and this is therefore clearly beyond our present means. Status reports are usually obtained for prices ranging between $1000 and $2000 each, when jurisdictional members are not able to produce them internally.

Publication of results

By agreement, the designations made by COSEWIC and the information upon which they are based are in the public realm. Accordingly, accepted status reports are released in the original form and language with an introductory note and logo-cover, as "printing cost recovery items", sold by the Canadian Nature Federation. For those species classed as either "threatened" or "endangered", single-page "summary sheets" are printed by the Canadian Wildlife Federation and sold at "cost recovery" to provincial and other agencies, for free distribution to the public, especially in schools.

Finances

At the outset, status reports were produced by the member jurisdictions, either by designation of staff members to write the manuscripts, or by letting contracts to external expert authors. As manpower and budgetary pressures mounted, fewer status reports were available from jurisdictional sources, and the output of COSEWIC faltered.

Fortunately, at that critical time, WWF Canada, through the personal efforts of Monte Hummel, Executive Director, succeeded in obtaining private donor funding from the Richard Ivey Foundation, amounting to $49 500, spread over 3 years. This timely help reactivated the production of status reports and the effect persists, even though the last of the Ivey support contracts were committed some time ago.

The reason for the interval between contract signing and official status is that a manuscript may take a year or more to prepare, must be accepted by the appropriate sub-committee, must be submitted to the jurisdiction(s) in whose territory the species is found, and then be circulated to the general membership of COSEWIC several months in advance of the annual meeting at which status is assigned.

As the last of the WWF/Ivey Foundation money was committed, it became clear that COSEWIC was facing financial starvation for the second time. Again, WWF Canada, through Monte Hummel, offered financial help, this time from its own resources, on a dollar-for-dollar matching basis, up to a total of $45 000 (spread over 3 years on a declining scale). WWF offered to match each dollar raised by jurisdictions for the production of status reports up to yearly limits of $20 000 in 1982, $15 000 in 1983, and $10 000 in 1984. At present, COSEWIC is using the 2nd year's allotment of $15 000 which, when matched, amounts to $30 000 during the current year. Under this arrangement the total amount over 3 years available for the production of status reports is $90 000, if jurisdictions are able to raise the money needed to call forth the full WWF Canada pledge. The process of raising money from members to call forth the full 2nd-year matching grant from WWF Canada is underway at the time of writing.

Financial audit

The foregoing is prologue and perspective for the 5-year financial audit that was requested by FPWC in 1982.

The work of COSEWIC is carried out by jurisdictional and institutional members as part of their paid employment, and also by authors who write manuscripts under

contract. Monies from various sources that are spent on contracts are known and are accurately accounted for (though there is sometimes a problem when amounts from several sources are used to underwrite a single contract, and are taken from computer accounts in more than one office).

The salaries of members who contribute "in kind" can only be estimated. Entries under this heading must therefore be treated as "not substantiated from institutional records".

All the figures in Table 4 are those supplied to COSEWIC by member organizations.

Table 4. Expenditures[a] by participating agencies to April 1983

Members	Salaries	Travel & other	Status reports	Total
	($)	($)	($)	($)
British Columbia[b]	3 500	3 800	1 200	8 500
New Brunswick	4 500	1 800	0 000	6 300
Quebec	8 400	1 500	0 000	9 900
WWF Canada	3 800	13 400	68 500	85 700
CWF[c]	--	--	--	--
CWS	110 200	42 100	34 400	186 700
NMC	75 000	7 500	5 500	88 000
DFO[d]	14 000	200	76 000	90 200
Parks Canada	10 500	300	1 500	12 300

[a] From figures supplied by each agency that responded to the Chairman's letter of request (five provinces responded; three of these supplied figures).

[b] Up to April 1982.

[c] CWF contributed in kind by printing and distributing COSEWIC summary sheets, at cost. To date, 600 000 sheets have been distributed and an additional 115 000 are in stock.

[d] Includes $50 000 obtained by DFO from DSS.

Report

STATUS OF WATERFOWL IN CANADA, 1983

Canadian Wildlife Service

Again the prospect is for a lower than average production of ducks in the Canadian prairies. Breeding populations are low. The Alberta prairies remain dry. Water conditions have improved on the eastern prairies, but late storms in Manitoba have delayed the nesting season and caused losses to early nests.

Elsewhere in Canada, duck production should be good. In Ontario, especially in the north, favourable weather was late in coming, but there is plenty of water for raising ducklings. The hot dry spell in southern Ontario may cause problems if its continues, but at the time of writing there is no cause for concern.

Canada Geese should do well everywhere except in the more arctic nesting localities, notably in the vicinity of western Hudson Bay. Healthy populations and good breeding conditions for Canada Geese prevail in the southern parts of their breeding range from Labrador to British Columbia.

Arctic nesting geese will not do as well. Late snow-melt accompanied by massive flooding at Bowman Bay (Baffin) and East Bay (Southampton) will reduce the production of Snow Geese from west Hudson Bay to the Foxe Basin. Improved weather conditions in Foxe Basin may have come too late for Snow Geese, but might allow successful breeding of Atlantic Brant.

Surveys of hunters indicate that the kill of ducks has been decreasing rather steadily in the past few years. This is explained by two main factors--a decreased kill in the prairies and a decrease in the number of active hunters. This year should see a levelling off of this trend, but substantial gains in the harvest will probably not come until prairie breeding production has returned to more normal levels.

Table 1. Review of Canadian Harvest Survey results (1978-82)

	1978	1979	1980	1981	1982
Ducks killed	3 500 000	3 500 000	3 400 000	3 000 000	2 900 000
Geese killed	594 000	660 000	750 000	580 000	620 000
Prairie Mallard killed	1 000 000	1 200 000	1 000 000	790 000	690 000
Ontario Black Duck kill	90 000	87 000	93 000	78 000	88 000
Waterfowl hunters	410 000	380 000	390 000	350 000	350 000
Duck kill per hunter	8.6	9.0	8.8	8.5	8.2

(cont'd.)

Table 2. Summary of breeding prospects for waterfowl, 1983

Region	Timing	Duck populations	Water availability	Brood habitat	Outlook for ducks	Outlook for geese (Canada)
Atlantic	early	average	good	good	good	good
Quebec	*	average	good	good	good	good
Ontario	late	average	good	declining	good	good
South prairies						
Manitoba	late	low	average	stable	average	fair
Saskatchewan	normal	low	fair	declining	poor	good
Alberta	early	low	poor	poor fair	poor (grassland) fair (parkland)	good
British Columbia	*	average	average	*	normal	normal

* Not reported.

Table 3. Arctic goose outlook

Hudson Bay Snow Geese - poor
Foxe Basin Snow Geese - poor
Foxe Basin Brant - fair
West arctic geese - normal
High arctic geese - normal

Report

THE ADMINISTRATIVE COMMITTEE FOR POLAR BEAR RESEARCH AND MANAGEMENT

I. Stirling
Canadian Wildlife Service

The Administrative Committee reviewed progress on the programs it supported in 1982. Significant progress has been made on deterrents for polar bears around human habitations. Population modelling continues to progress, and an interactive prototype model for management use is anticipated within the next year. Specimens continue to be analyzed for a baseline study of toxic chemicals in polar bears.

A report was received from the Polar Bear Technical Committee, which gave a detailed review of the wide range of research and management activities undertaken by each jurisdiction in the previous year.

Little progress was made in the search for a solvent-soluble dye, to prevent the commercial value of hides from being affected by marking for research activities. Research will continue in this area.

Technical difficulties have slowed progress in developing satellite tracking of polar bears. Some new technical developments are becoming available and will be tested. Progress will be slower than was originally hoped.

The US Fish and Wildlife Service has asked Canada to consider supporting an application for a waiver of the Marine Mammal Protection Act, which would permit polar-bear hides to be imported into the United States. The principal motivation is to make it legal for American sport-hunters, who take a polar bear on an Inuit-guided hunt, to take the hide back to the United States. The basic Canadian position is that all legally taken hides from Canada should be included, not just those taken by sport-hunters. The matter will be investigated thoroughly before a decision is made on whether or not to proceed.

Setting quotas

It was noted that the setting of quotas on polar bears in northern Quebec may be done fairly soon, and should be done in conjunction with other jurisdictions, particularly the Northwest Territories, since this is a shared population. A Northern Quebec Inuit Corporation has expressed interest in having population studies conducted that would provide the basis for setting quotas and, ultimately, hunting seasons. The Quebec Wildlife Service will initiate discussions with them on this subject. The Northwest Territories and CWS have volunteered resource personnel to assist as required.

The Technical Committee requested that the Administrative Committee take note that polar-bear quotas have increased steadily in recent years, and presently the total exceeds 700 per year. The Technical Committee also requested that no further increases be considered before population studies are completed and a prototype simulation model of population is operational. This was agreed to by the Administrative Committee.

Continuing difficulties were noted in funding polar-bear research to meet management needs of individual provinces and territories, as well as Canada's overall requirements under the International Polar Bear Agreement. This approach will be essential to studying the polar-bear populations of Foxe Basin, Hudson Strait, and Hudson and James bays. Closer co-operation in research, planning, and implementation were recommended, as well as the need to search for greater financial support outside of internal budgets.

For 1983-84, the committee recommended continuation of programs underway, with particular emphasis on deterrents, population modelling, and baseline studies of toxic chemicals. A co-ordinated population ecology study of polar bears in Foxe Basin, northern Hudson Bay, and Hudson Strait was identified as a high priority.

Report

THE CANADIAN COMMITTEE ON UNGULATE MANAGEMENT (CCUM)

W.K. Hall
Chairman

The meeting of the CCUM in Edmonton on 27 June 1983 was convened under the chairmanship of W.K. Hall of the Alberta Fish and Wildlife Division. Other jurisdictions represented were Manitoba Wildlife Branch, Ontario Wildlife Branch, and CWS.

Revised "Terms of reference" were supplied by British Columbia as a consequence of Resolution No. 17 of the 46th Federal-Provincial Wildlife Conference in Whitehorse, YT. Those "Terms of reference" were discussed and approved in principle with suggestions for minor changes, but final approval will have to come by mail from committee members, because of the lack of a quorum in attendance.

An important item of business was to have been the discussion of a final draft of a paper by D.S. Eastman and I.W. Hatter, entitled "Compensatory and additive mechanisms of hunting mortality in moose: A Canadian perspective", called for at the 1981 Federal-Provincial Wildlife Conference. Unfortunately, not all representatives at the meeting had yet received the paper from the British Columbia Fish and Wildlife Branch, so comments and approval will have to be done by mail, together with stated preferences for publication of the material. A deadline date of 31 August 1983 was set for receiving those comments.

Special subjects

The committee members present identified the following subject areas in ungulate management for special attention by the CCUM, noting that these are almost universal topics in Canada, and that they are currently not being addressed by any other group:

(1) The ranch-rearing of ungulates in captivity; specifically game-ranching.

(2) Current and future problems related to the subsistence hunting of wild ungulate species in western and northern Canada.

(3) Interactions and conflicts between forest management and ungulate wildlife management throughout Canada.

(4) The impact of accelerated agricultural development on ungulate populations in frontier areas of the various provinces, especially in western Canada.

(5) A yearly exchange between agencies of lists of research projects being undertaken on ungulate species, and the priority accorded to each; this to be the basis for information exchange and inter-agency co-operation.

Report

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

By the end of March 1983, 81 countries had ratified and were fully participating in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The major work of the CITES Parties in 1982-83 concerned the 10-year review of the species included in the appendices. During the Third Conference of the Parties, held in New Delhi, India in 1981, the Parties resolved, in response to a proposal co-sponsored by Canada and Switzerland, to complete a 10-year review of the appendices. The review is designed to evaluate the effectiveness of the Convention, and is to be completed in time for the April 1983 Conference of the Parties, planned for Gaborone, Botswana.

As the representative for the North American region on the CITES Central Committee of the 10-year review, Canada co-ordinated the North American regional review during 1982-83. Two regional meetings were held--one in Vancouver in February, and the other in Texas in September. Although not a Party to CITES, Mexico attended both meetings along with Canada and the United States of America. As a result, Canadian and American proposals for amendments to the appendices to be considered in Botswana have the full support of the Mexican wildlife agency, the Direccion General de Fauna Silvestro. In addition to the regional meetings, Canada participated at the CITES Standing Committee and Central Committee meetings held at the CITES Secretariat in Gland, Switzerland in June.

Canadian changes

In Canada, the review led to the preparation of status reports on 11 species, with corresponding proposals for amendments to the appendices having been submitted to the CITES Secretariat prior to the 1983 Botswana conference deadline of 20 November 1982. On 4 November 1982, the CITES Scientific Authority held a public hearing to solicit from NGOs the scientific information concerning the proposals. Such information may also be submitted up to and including the Botswana conference, and the proposals may be withdrawn at any time prior to voting at the conference.

As their populations are considered neither endangered nor threatened, and since there is effective Canadian protection for them, the timber wolf (Canis lupus), bighorn sheep (Ovis canadensis), grizzly (Ursus arctos), lynx (Lynx canadensis), bobcat (Lynx rufus) and lake sturgeon (Acipenser fulvescens) were proposed for deletion from Appendix II. The northern swift fox (Vulpes velox hebes), longjaw cisco (Coregonus alpenae), and blue walley (Stizostedion vitreum glaucum), all included on Appendix I, were proposed for removal from the appendices, since all are believed to be genetically extinct. The river otter (Lutra canadensis), although not endangered or threatened in Canada, resembles other more endangered otter species. For the protection of these foreign species, the river otter is proposed for retention on Appendix II as a "look-alike". The 11th proposal is for the transfer of the shortnose sturgeon (Acipenser brevirostrum) from Appendix I to Appendix II, since additional populations of this species have been found, and it is not considered endangered.

If a country disagrees with the listing of a species, it may, in accordance with the Articles of the Convention, place "reservations" against the inclusion of that species in the appendices. When reservations are entered, the country is considered by other CITES members as a non-Party state with respect to the species involved. The placing of reservations has caused problems for Canada for two reasons:

(1) as a result of a resolution of a Conference of the Parties, Canada must continue to issue CITES permits for shipments involving species that she has placed under reservation;

(2) entering reservations on species misleads the public into believing that CITES permits are not needed, and thus exporters risk having shipments detained by other CITES Parties.

Consequently, during October 1982, Canada withdrew all the reservations that she had placed. This led to inclusion on the appendices of the species shown in Table 1.

Table 1. Species included on the appendices

Appendix I

Sotalia spp.	Humpback dolphins
Sousa spp.	Humpback dolphins
Neophocaena phocaenoides	Black finless porpoise
Eschrichtius robustus (glaucus)	Gray whale
Balaenoptera borealis	Sei whale
Balaenoptera physalus	Fin whale
Branta canadensis leucopareia	Aleutian Canada Goose
Coregonus alpenae	Longjaw cisco
Stizostedion vitreum glaucum	Blue walleye

Appendix II

Ursus arctos (North American sub-species)	Brown (grizzly) bear
Ovis canadensis	Bighorn sheep
Anser albifrons gambelli	Tule White-fronted Goose
Acipenser fulvescens	Lake sturgeon

Lifting the reservations also allowed Canada to submit to the CITES Secretariat, for consideration at Botswana, proposals on the longjaw cisco, blue walleye, grizzly, bighorn sheep, and lake sturgeon.

Training programs

When a nation becomes a Party to the Convention on International Trade in Endangered Species, that nation makes a commitment to apply at least the minimum requirements of CITES. One method of accomplishing this is through effective enforcement of the CITES regulations. So that Canada's international credibility is maintained,

the CITES office of CWS has been presenting training seminars on the CITES regulations to Customs and Royal Canadian Mounted Police (RCMP) officers. After several trial seminars during 1981, the CITES training program began in earnest in 1982, and during the year 63 seminars were presented to a total of 574 Customs and RCMP officers in such varied locations as Drummondville, Sault Ste. Marie, Hamilton, Windsor, Thunder Bay, Winnipeg, Regina, Victoria, and Whitehorse. The seminars include a history of the Convention, a description of the CITES regulations, an explanation of the appendices, and a slide presentation of CITES-regulated specimens. Since the program began, over 80 seminars have been presented to approximately 800 enforcement officers. CITES is applied in Canada through the Export and Import Permits Act.

Throughout the world, the major enforcement problem for CITES Parties has been recognition of the species and products in trade. To assist enforcement agencies, member states have been co-operating in the development of an "Identification manual" which, when completed, is expected to comprise 12 volumes. Work on Canada's initial contribution to the manual occurred during 1982-83, and resulted in submission to the CITES Identification Manual Committee of information sheets on all bear species (Ursidae) and all falcons (Falconidae) found around the world. The National Museum of Natural Sciences co-ordinated the preparation of the information sheets, which are expected to be distributed to all CITES Parties during 1983.

Conducting training on the CITES regulations and gathering material on how specimens may be identified ensures that Canada lives up to her international obligations under CITES. However, in addition to ensuring that laws are abided by, preventative measures are needed. Prevention of unintentional infractions of the law can only be achieved through better public awareness of CITES. Originally released in 1979, the "Noah didn't need a permit, what about you?" pamphlet continued to be distributed widely and to be well received during 1982. As well, the TV clips that were produced at the same time are still aired by television stations across Canada as public service announcements.

Other Canadian activities

To supplement these efforts, CWS, in conjunction with the National Museums of Canada, is preparing a CITES exhibit entitled "Souvenirs of extinction". At the end of March 1983, the exhibit was in its final stages of preparation, and it is anticipated that the exhibit will be on display in international departure lounges in the airports at Mirabel, Toronto, and Vancouver by June 1983. In addition, during 1982, CWS published and distributed one CITES report: No. 9, August 1982, "1981 Annual Report for Canada".

Both nationally and internationally, the CITES program continues to grow. In 1982, the CITES staff at CWS increased by 50% - from 2 to 3. Internationally, a Canadian, Eugene Lapointe, was appointed Secretary General of the CITES Secretariat effective 15 April 1982. Mr. Lapointe, a lawyer, previously served with the Department of Industry, Trade, and Commerce, and was responsible for the legal aspects of the application of CITES in Canada. In that capacity, Mr. Lapointe participated in the 1st conference of the Parties held in Berne, Switzerland in 1976, and the 2nd conference held in San José, Costa Rica during 1979. He also attended the 1979 CITES Extraordinary Meeting in Bonn, West Germany, which resulted in an amendment of the "Convention articles" allowing the Parties to fund the CITES Secretariat directly.

During 1982, federal, provincial, and territorial CITES authorities issued 3320 endangered-species export permits. During the same period, the federal authority issued 52 endangered-species import permits for Appendix I speciments, 43 transit certificates, mainly for temporary entry of circus animals, and 47 scientific certificates for the non-commercial loan, donation, or exchange of prepared scientific specimens between scientists.

Report

CANADIAN WILDLIFE FEDERATION

K.A. Brynaert
Executive Vice-president

This report will cover the period from July 1982 to June 1983. It has been an extremely busy period because, in addition to normal program activities, CWF has been engaged in planning a number of new initiatives. The preparation of this report was delayed in anticipation of our being in a position to make some firm statements about new programs. However, because our plans have not developed as quickly and as fully as expected, my comments will be somewhat more vague than originally intended.

Executive changes

Our new President, J.Y. Hickman, of Halifax, NS was elected at the annual meeting in Charlottetown, PEI on 28 May. There were also some other changes and additions to the CWF Board of Directors, including the appointment of Lorne Yeo, PEI as 3rd Vice-president; Don Hayden, Alta. as Secretary, and Dr. Gaston Moisan, Que., Dr. Richard Pharis, Alta., and Richard DeBow, NB as directors.

Membership

The growth of CWF has continued over the past year, and we now have over 500 000 members and supporters across Canada. There are three publications available to members, "International wildlife" for regular members, "Ranger Rick" for junior members, and "Big backyard" for beginners. Our Membership Services respond to many thousands of requests for information on a wide variety of subjects, including endangered species, wildlife management, and trapping. The CWF also distributes a large volume of "Hinterland who's who", COSEWIC publications, and information on sealing, whaling, and people/wildlife conflicts.

Notable among membership services are the wildlife tours. These tours provide opportunities to visit parks and other wildlife areas, and to meet wildlife managers and members of wildlife organizations in other countries. They also help our members better to understand wildlife problems in other countries and at home, permit an exchange of views, and enlist support for wildlife organizations around the world. These tours visited India, Nepal, Zimbabwe, South Africa, Equador, and the Galapagos Islands. Tours in 1983 are planned for South Africa, New Zealand, and Canada's High Arctic.

National Wildlife Week

CWF prepares, produces, and distributes National Wildlife Week kits, in co-operation with federal, provincial, and territorial governments and wildlife agencies. Primary distribution is made through departments of education to schools, with secondary direct distribution, while the supply lasts, to Scouts,

Girl Guides, 4H Clubs, and conservation organizations. This program is the subject of a separate report to the conference, and there is no need to elaborate further in this report.

"World conservation strategy" summit

Many of you are aware that CWF has taken the initiative in endeavouring to hold a "World summit" in Ottawa, in June 1986, featuring the implementation of the "World conservation strategy". We are fortunate in having enlisted the services of Dr. David Munro, as Acting Chairman, to begin the arduous task of planning the summit, and in representing CWF interests in that endeavour.

It is too early to give specifics, since we hope to enlist the support and inputs of several other countries and international organizations in planning the summit. Dr. Munro and I will be travelling to Switzerland, during the first week of July this year, to meet with representatives from IUCN, UNEP, AFO, and World Wildlife Fund International, to discuss the proposal and to initiate the formation of a summit organizing body. We shall endeavour to keep you advised of our progress.

At this stage, it is too early to prepare a firm recommendation for consideration by this conference, however, and expression of support and encouragement would be appreciated. As far as Canadian participation is concerned, Dr. Munro prepared and delivered a paper to the CWF annual meeting in Prince Edward Island in May, which we believe has a lot of interesting points that are worthy of consideration. In essence, it deals with the desirability of planning and implementing a provincial conservation strategy, patterned on the principles of the "World conservation strategy". Copies of that paper can be made available on request.

Acid rain abatement

Acidic precipitation, in its various forms, continues to represent the most serious threat to our environment that we have ever faced in our history. The abatement of SO_2 and NO_2 emissions, the principal precursors of acid rain, throughout North America cannot be achieved by wishing it were so. Strong legislative action, in both Canada and the USA, is the only means by which a real and lasting solution can be achieved. To be effective, strong enforcement of clean-air regulations must support the legislation. Public awareness and understanding of the problem, coupled with a determination to ensure that a proper solution is secured, are the most effective weapons we have in our battle for the abatement of acid rain.

During 1982, and continuing into 1983, CWF has conducted an information program, in co-operation with US conservation and wildlife groups, directed at over 5 million US citizens. The main thrust is to secure their support in strengthening the US Clean Air Act. The Canadian government provided financial support to CWF in this effort, through a contractual arrangement for the production and distribution of information pamphlets and bumper-stickers. It is gratifying to note that an aroused US public is now demanding changes in the administration of the Environmental Protection Agency.

An on-going program to educate Canadians with respect to the sources and dangers of acid rain is progressing satisfactorily. As part of this action, information

posters and leaflets were produced for distribution to teachers and the public. Over 200 000 copies of this material were published, in both English and French, and 150 000 copies were included in the 1983 National Wildlife Week educational kits for distribution to schools and youth organizations across Canada. Environment Canada provided the posters on which CWF printed the information about acid rain in Canada, extracted from the publication, "Still waters".

CWF plans to continue and expand its activities aimed at securing the abatement of acid-rain-causing emissions, and will look forward to working with other organizations sharing its concerns and objectives.

Asian racoon dog

After 2 years of continued pressure by CWF to have the Asian racoon dog (Nycteruetes procyonoides) removed from Canada, confirmation was received, late in 1982, that Environment Canada's offer of a $115 000 grant to the fur-farmer to convert the facilities to raising foxes had been accepted by Supi Farms of Madoc, Ont. This allowed them to dispose of their stock of racoon dogs by pelting them out at the end of the season.

This information came as a great relief to farmers and wildlife conservation groups in Canada, particularly when assurance was given that none of the animals had escaped into the wild.

On the negative side, CWF has recently learned that there are at least two fur-farmers known to be rearing racoon dogs in the northern USA. Their proximity to the Canadian border poses as much a threat to Canada as if they were in our own country. The CWF has contacted various conservation organizations, as well as federal and state governments in the USA, encouraging them to take appropriate action to eliminate this hazard. Experience in Europe indicates that it is only a matter of time before some of these animals escape into the wild. Prompt action is needed to prevent such a calamity.

Wildlife policies

The "Guidelines for wildlife policy in Canada" were approved by the Wildlife Ministers' Conference in Regina on 30 September 1982, and have now been published for distribution. CWF was an active participant in the formulation of these guidelines, and is pleased that it had an opportunity to contribute to the process.

Wildlife in Canada is a shared resource, with the primary responsibility for conservation and management resting with the provincial, territorial, and federal governments, within their respective jurisdictions. However, governments do not act alone. Many Canadians express their interest in wildlife conservation and management, and contribute to it through NGOs at the local, provincial, and national levels.

CWF, with its affiliate members and supporters, will endeavour to pursue the promise, embodied in the guidelines, of achieving a rational and beneficial approach to wildlife conservation and management in Canada. The federation looks forward to working with governments and NGOs towards the implementation of these policy guidelines.

Briefs and submissions

CWF, in response to a request from the Nova Scotia Wildlife Federation, prepared and submitted a brief to the Nova Scotia Royal Commission on Forestry on the "Integration of forest and wildlife management". The brief presented did not attempt to deal specifically with the situation in Nova Scotia, but covered the general concerns relating to the impacts on wildlife arising from forestry operations and management. This brief, previously printed in "Wildlife report", Sept.-Oct. 1982, was generally well received, and generated a good deal of interest and comment.

The federation prepared and submitted a response to the "Lancaster Sound green paper" covering the options and management alternatives for development of this important arctic region. The thrust of the green paper was to clarify the alternatives for regional land-use planning related to development. CWF essentially opted for a development format that combined industrial and resource development, and that provided an option for local people between new employment and traditional occupations. This option was also consistent with the preservation of environmental quality, and the protection of ecologically sensitive areas, those important to wildlife, and areas required to support traditional resource-based occupations.

The important element in this option is to ensure that local residents have a real opportunity to influence the direction and time-frame for development, within the constraints of "Northern conservation and land-use" policies.

The federation's brief was submitted to the Beaufort Sea Environmental Assessment Panel. CWF did not attempt to respond to the huge volume of reports that have been generated by government agencies and private consultants on Beaufort Sea hydrocarbon development and transportation issues. The federation opted to review the record of industry in Canada and elsewhere, urging caution by government in responding to development proposals.

There is a clear indication that CWF's concerns and apprehensions are well founded. On the basis of the Stokes Point development proposal, and proposed amendments to regulations respecting disposal of wastes into the sea, all Canadians should be apprehensive about the impacts of these developments on the arctic environment and on wildlife. The real issue is whether the "Environmental assessment and review process" is being effectively applied as a means of ensuring environmental protection.

The Orville Erickson Memorial Scholarship Fund

This scholarship fund was established in 1975, in memory of the late Orville Erickson of Prince Alberta, Sask., an outstanding conservationist and outdoorsman. The fund is maintained by private subscription, and is used to assist students who demonstrate the kind of commitment and enthusiasm for wildlife that Mr. Erickson practiced during his lifetime. To perpetuate the fund, only the interest is disbursed, and no administrative fees are levied. A total of nine students have received scholarships of from $500 to $1100 each, enabling them to further their education in the field of wildlife conservation.

The federation has been giving serious consideration to the establishment of an additional memorial trust fund to assist students from third-world countries to study

biology, wildlife, and parks management in Canada. However, difficulties have been experienced in securing a tax-exempt status for funds donated for this purpose, thus an announcement of the fund and how it will operate must be deferred.

The Robert Bateman Canadian Conservation Trust Fund

Wildlife artist Robert Bateman has been closely associated with the Canadian Wildlife Federation for several years, supplying paintings, prints, and Christmas card designs that have helped to generate funds for use by CWF in conservation projects in Canada.

As a result of this outstanding co-operation, CWF has set up the Robert Bateman Canadian Conservation Trust Fund. Money from this trust fund will be used for conservation projects in Canada. Guidelines for the operation of the fund are being set up, and an announcement as to how it is to be managed will be released during 1983.

HSH Princess Grace Trust Fund

During 1982, the CWF was fortunate to have the opportunity to benefit from the production of limited-edition prints of Robert Bateman's paintings done for HSH Princess Grace of Monaco, presented to her 1 year ago. A portion of the funds realized from the sale of these prints has been assigned to the "Wood bison rehabilitation project" in Manitoba. We believe that about $70 000 will be available to the project when the province gives its final approval. This contribution to conservation will provide a fitting tribute to the memory of Her Serene Highness, and a suitable commemorative plaque will be erected to that end.

Report

CANADIAN NATURE FEDERATION, 1982

Membership

Membership in the Canadian Nature Federation (CNF) remains fairly constant at 18 000 individuals, plus 91 conservation and environmental groups with a total membership of circa 150 000 voluntarily affiliating.

Gross income remained steady at the $1-million mark during 1982, and at the end of the year the CNF had a favourable balance sheet.

Publications

Our main publication is the quarterly magazine, "Nature Canada", the only national nature magazine published in Canada.

The second regular publication, the "Canadian conservation directory", lists the many organizations concerned with conservation and environmental matters: citizens' groups, governmental agencies and departments, nature centres, and museums, as well as private consulting and professional organizations. The 5th edition will be published later this year.

Nature Canada Bookshop

Our retail bookshop in Ottawa has recently expanded to a 6-day week from the past Monday-Friday operation. However, the main thrust of the program is still mail-order, as a service to those members and the general public in small towns and rural populations who do not have ready access to books on nature and the environment. Although books remain the back-bone of the operation, recent expansions into new lines of nature-orientated products have been very successful.

All proceeds from bookshop sales are used to further our conservation work.

Canadian nature tours

In co-operation with the Federation of Ontario Naturalists, the CNF offers members exciting opportunities to discover the many unspoilt corners of wild Canada. These are for back-packers and horse-backers, canoeists and camera buffs, and everyone in between. From the Everglades of Florida and the islands of the Bahamas to the icebergs of Greenland and the volcanoes of Iceland, we offer a wide variety of exciting and unusual experiences.

Douglas H. Pimlott Conservation Award

The CNF offers this award annually to an individual who has made an outstanding contribution to Canadian conservation. The 1982 winner was Vladimir J. Krajina, professor emeritus of botany at the University of British Columbia, who can

safely be described as the father of ecological reserves in Canada. During the 60s and early 70s, he spearheaded efforts to obtain ecological reserve legislation in British Columbia. The passage of the act in 1971 made that province the first to pass such legislation, an example that has since been followed by seven of the other nine provinces (the latest being Alberta in December 1981).

Dr. Krajina has led a colourful and varied life. His doctoral research in botany was completed in Czechoslovakia. Later he became a leader in the resistance to the Nazis and then, following the war, secretary to the ruling political party. He fled Czechoslovakia in 1948 during the communist take-over. On his arrival in Canada, he continued his botanical career.

In 1975, one of the largest ecological reserves, a magnificent wilderness area on the west coast of the Queen Charlotte Islands, was named in Dr. Krajina's honour, and in late 1981 he was made a member of the Order of Canada.

Canadian Nature art scholarships

The scholarship fund of up to $5000 annually is administered by the CNF, and supported by donations from the Weston Foundation. Each year, applications are received from promising artists seeking to hone their skills; the only limitations are the artists' needs and imaginations.

Last year, Clive Powsey and Greg Damery were the two recipients. Mr. Damery, a highly talented landscape artist, will use the funds to complete the requirements for his master of fine arts degree. Clive Powsey plans to spend his scholarship on a 4-month painting excursion to the West Coast Trail of Pacific Rim National Park.

During the year, a new award was added to our program--the Norcen Scholarship--contributed by one of Canada's leading oil and gas companies. This award went to Ernest A. Somers, an innovative print-maker.

Nature sanctuaries

The Clifford E. Lee Nature Sanctuary of the CNF (30 km from Edmonton) was greatly expanded this year by the acquisition of additional land. Initial studies on the flora and fauna of the sanctuary have been completed, and walk-ways and viewing blinds are now in place.

Interpretative programs for school-children and adults are planned to introduce visitors to the natural history of the sanctuary.

1982 annual conference

Although dogged by overcast skies and frequent cloudbursts, the 1982 conference held in July at the University of Calgary was an outstanding success. Participants thoroughly enjoyed a wide variety of trips, lectures, and social events orchestrated by the Calgary Field Naturalists' Society.

The 2-day symposium on "Resources and reserves" showed that conservationists living in a province that is growing as rapidly as Alberta face a special

challenge. Impacts of agricultural and industrial expansion, and the demand for massive water-diversion plans that would change the face of the province, were brought clearly into focus, and the need for decisive action was detailed.

The annual general meeting saw the introduction and adoption of new by-laws giving the Nature Federation a smaller but more effective Board of Directors.

The new structure is the culmination of 2 years' research by the Priorities Committee, and its aim is to improve provincial representation in the decision-making process.

The 1983 conference will be held in Sackville, NB from 11 to 14 August. The theme of the symposium will be "Estuaries - where the river meets the sea". Twenty field trips and tours will offer unique opportunities to explore the rich and rugged wild heritage of the Atlantic seaboard, and lobster-boils and clam-bakes will add to the festivities.

Environmental action program

The Nature Federation's conservation activities were based on strong interest in wilderness protection, wildlife management, and rare and endangered species. We continued our active involvement in arctic concerns, including conservation of Lancaster Sound, Polar Bear Pass, and the Yukon North Slope, where fragile northern ecosystems face pressure from hydrocarbon development. We promoted the protection of natural areas through our membership in the Canadian Council on Ecological Areas and financial support for the publication, "The status of ecological reserves in Canada", by P.M. Taschereau of Dalhousie University. The CNF financially supported the important conservation work of other organizations, including the Arctic International Wildlife Range Society and the Coalition on the Niagara Escarpment.

Some highlights of our activities for 1982 are:

(1) Environmental impact assessment -

We participated in environmental assessment reviews for both the Slave River Hydro-electric Project in Alberta and the Venture Natural Gas Project near Sable Island, off the coast of Nova Scotia. The CNF analyzed the Alberta government's "Slave River hydro feasibility study", and made submissions to impact assessment guideline hearings for both the Slave River and Venture projects.

In a submission to the Nova Scotia Uranium Inquiry, we discussed a number of environmental concerns related to uranium mining.

(2) Wildlife Management -

The Nature Federation made recommendations to the federal Minister of Fisheries and Oceans regarding whale quotas under consideration by the Committee on Whales and Whaling.

We serve on the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), participating each year in the committee's evaluations of the status of a number of wildlife species. The Nature Canada Bookshop serves as a distribution centre for COSEWIC reports.

(3) Land-use planning

In 1982, the Ontario Ministry of Natural Resources carried out a public review of its district land-use strategies. The CNF participated in this review, and presented briefs at a number of public meetings held by the Minister, the Hon. Alan Pope.

At a Parks Canada public meeting, we presented a detailed analysis of the Wood Buffalo National Park draft 'Management plan".

(4) Acid rain

Our work in the fight against acid rain included participation as a member group of the Canadian Coalition on Acid Rain, and serving on a five-member panel on acid precipitation at Butler University in Illinois.

(5) United Nations Environment Program (UNEP)

Former Conservation Director, Rick Pratt, was part of the Canadian delegation to the UNEP 10-year celebration conference in Nairobi, Kenya. Some 100 countries were represented at the conference, which discussed environmental issues following the 1972 Stockholm Conference.

In 1982, we had another busy year of meetings and discussions with government officials and conservation groups, while responding to the many and varied concerns of our members.

Report

DUCKS UNLIMITED CANADA

1983 program

In 1982, Ducks Unlimited (DU) Canada's 44th year of habitat development, work was carried out on 346 individual projects representing a total of 15 074 new ha and 940 new shoreline-km in Canada. As well, negotiations with governmental and private landowners brought almost 243 000 ha of wetland under reservation for future development.

During the last year, DU Canada signed an agreement on co-operative wetland development, the Heritage Marshes agreement, with the Province of Alberta. This adds to a growing list of provinces already including Saskatchewan, New Brunswick, Nova Scotia, Quebec, and Prince Edward Island, with which agreements have been made in previous years. Negotiations begun in 1982 towards similar agreements with the governments of Manitoba and Ontario show promise for additional reserved areas this year. The agreements are a major factor in the ambitious development plans scheduled for 1983.

With 300 projects representing more than 16 200 ha planned, 1983 promises to be a year of vigorous activity across the nation. In addition to new developments and carry-overs, 45 existing projects representing 5976 ha will be improved across Canada in 1983.

Biological and engineering reconnaissances will number more than 1700 and 900 respectively in the continuing effort to secure new wetlands for years to come.

Contributors' support in 1982 resulted in the establishment of 31 new committees, bringing the cumulative total to 61. For 1983, the Contributor Services group will assist in the establishment of 30 new committees across Canada. Contributors' numbers will increase to 22 000, and the organization has set a $1.7-million revenue goal.

British Columbia

In British Columbia this year, work is planned on 36 projects for a total of 1037 ha of new habitat developments.

In the Creston area, Englishman Creek, located southeast of Cranbrook, will see the development of three basins totalling approximately 24 ha and 4 shoreline-km. As a result of co-operation with the BC Fish and Wildlife Branch and Water Management Branch, two existing dams will be improved, and a third dam and control constructed to improve irrigation for a local rancher, and to free valuable marshland for intensive waterfowl habitat development.

At Jack Lake in BC's Cariboo region, southwest of Prince George, plans are underway to install a variable-crest weir to raise water levels and excavate 1.9 km of level ditching. This will improve nesting and loafing habitat, and secure the lake basin for a wide variety of waterfowl, including Canada Geese, Mallard, widgeon, teal, scaup, ring-neck, goldeneye, and Bufflehead, in future years.

In another development, south of Burns Lake, BC, DU is currently negotiating with the Aluminum Company of Canada (Alcan) to construct a dam on the Beaver Lake marsh neighbouring Ootsa Lake, Alcan's reservoir for a power plant supporting smelting operations in the area. The proposed Beaver Lake dam, additional level ditching, and the construction of a nesting island will secure a 9.5-ha wetland, another in a continuing program of marsh preservation on property controlled by Alcan.

The Davis Lake wetlands, located between the communities of Merritt and Princeton, BC in the southern interior of that province, comprise two basins representing 5.6 ha of wetland habitat. Both will be developed in a project that includes construction of two dams, and involves the co-operation of the BC Ministry of the Environment, Ministry of Forests, and a local rancher.

As well, operations feature a total of 87 maintenances to be carried out, 5 existing projects for improvement, and 151 biological and 97 engineering reconnaissances.

Alberta

The 1983 Alberta program will feature work on 98 projects, of which 93 are new starts, and five represent work carried over from 1982, for a total of 4905 ha of wetlands to be developed.

The year's program will feature completion of two major southern Alberta projects. Finishing touches will be put to the 2152-ha Kitsim Complex near Brooks, and construction will be completed on the 1482-ha Verdigris Project near Lethbridge.

Alberta's 1983 program also includes development of the Hilton project, a 100-ha, cattail-choked marshland near Strathmore. Water management techniques will be applied prior to the spring runoff season. The project should attain full operating status during the summer.

At the 36.5-ha Huculak Project in north-central Alberta near Westlock, construction of an outlet will secure the surrounding marshlands from drainage. With the co-operation of the County of Athabasca, the marsh water levels will be adjusted to improve the waterfowl habitat.

Near Wainright,Alberta, the 202.5-ha Blackburn Lake Project, a breeding and staging area that has been ravaged in the past by fluctuating water levels, will see the construction of three individual segments to stabilize water levels and rock islands to provide secure nesting sites for Canada Geese and other waterfowl.

Near Ponoka, the 154-ha Mud Lake project, an area historically important as a stop-over with excellent production potential for migrant waterfowl, will have draw-down facilities installed, so that water levels can be manipulated to stimulate production of emergent vegetation. As well, earth-fill islands are to be constructed to provide secure nesting sites for waterfowl.

Other Alberta activities will include maintenance on 104 projects, 12 project improvements representing 2070 ha of habitat, and three major repairs on existing projects.

Proposed developments identified in the landmark "Wetlands for tomorrow" program, signed in 1982 by DU Canada and the Government of Alberta, will be actively pursued, with the possibility that initiation of development on two of the areas may be announced during the year.

Saskatchewan

Fifty-one projects, representing 4740 ha will be worked on in Saskatchewan during 1983. Of these, 43 are new projects, and eight will involve completion of work on projects begun previously. As well, four other projects are to be improved and two projects will be repaired.

The final phase of construction on Saskatchewan's first Heritage Marsh, the Mellon Ponass Lake Project, will begin during the first quarter of 1983, and the project is expected to be completely operational by fall. This will alleviate problems with perennial spring flooding of some 4455 ha of marsh and upland habitat in the area.

In co-operation with the City of Lloydminster, construction will be initiated on the 260-ha Neale Complex. In addition to waterfowl benefits, the City of Lloydminster, local rural municipalities, and 27 landowners will benefit through the project's ability to improve the management of runoff water within the complex, thus reducing spring flooding of valuable agricultural land along the entire system.

Major construction will progress during 1983 on the 405 ha Valeport Project in the Qu'Appelle River Valley, a project designed to correct fluctuating water levels that have played havoc with fish and waterfowl production in the area. As well, work will continue to renovate the water management system on the 2025-ha Eyebrow Lake Project in the same region.

Conceptual designs for the Chaplin and Foam Lake Heritage Marsh projects will be finalized with the Government of Saskatchewan during 1983. In addition, emphasis will be placed on negotiating the Thunder Creek Heritage Marsh proposal with the Saskatchewan government, rural municipalities, and landowners along that 4050-ha chain of wetland basins. After 2 years of extremely low runoff in the area, the project will be welcomed by both the agricultural community and wildlife conservationists.

Manitoba

Forty-six new projects and one completion, encompassing a total of 2745 ha and 14 project improvements, will be carried out in Manitoba in 1983.

Work will be initiated on the Lidcliff Marshes, located south of Russell. DU Canada will not only improve the waterfowl breeding potential of this valued 648-ha marsh complex, but ensure its future for moulting and staging Canvasbacks, Redheads, Mallards, Pintails, and myriad shorebirds.

Major diking work will take place on 324 ha at Marshy Point to create four independent impoundments that will improve water management capability, and thereby duck and muskrat production. Marshy Point, located near St. Laurent on Lake Manitoba, is a major breeding area for the giant Canada Goose, whose production should be greatly enhanced by this project.

In 1983, a 2-year construction program at Oak Hammock Marsh, in co-operation with the Manitoba Department of Natural Resources, will begin. This will improve water management capability in the marsh and ensure that it reaches its full potential.

Negotiations will continue with the Province of Manitoba on a new agreement for the Carrot River Triangle, and for approval of a co-operative Manitoba government, Manitoba Wildlife Federation, Manitoba Naturalists' Society, and DU marsh development.

The Special Projects Team will complete development concepts for Loon Lake and Primes Lake, near Dauphin, and the Tom Lamb Wildlife Management area near The Pas. Preliminary biological and engineering investigations will also begin at Whitewater Lake in the Boissevain-Deloraine area.

Ontario

Equal emphasis will continue to be placed on both small and large marshes in Ontario in 1983. Small marsh developments in various locations around the province will account for 608 ha of the program. Highlighting large marsh developments in the province will again be the 2025-ha Hullett Project, with completion scheduled for this year.

The Ontario program incorporates work on 30 new projects and four that will be continued from last year, for a total of more than 850 ha of habitat to be developed.

An additional 142 ha of new habitat will be secured on the Beaverton River system by the construction of islands and level ditches, excavated primarily with a floating marsh-cutting machine called a "cookie-cutter". The machine will be used to improve a number of existing projects and several new ones.

Recent establishment in Peterborough of a third area office has provide complete coverage of the prime waterfowl habitat of southern Ontario. With the development program in the south now in full swing, investigations are underway to expand the scope of the operation into the fertile clay belt of northern Ontario. Work scheduled for this year will help to confirm the extent of potential DU involvement in this region.

Promising negotiations on a number of important waterfowl areas and the results of systematic wetland investigations indicate an optimistic future for wetland projects in Ontario.

Quebec

In 1983, the Quebec provincial office will begin its program by maintaining one of the oldest projects developed by DU in Quebec, the 93-ha Thurso Project on the Ottawa River.

Ten new projects will be worked on, and one project started last year will be completed, for a total of 1073 ha of waterfowl habitat. Quebec staff will carry out 40 biological and 20 engineering reconnaissances on prospective developments during the year. Work will also be done on projects such as the 28-ha Levesque

Project and the 4-ha Poulin Project, both located near St-Georges-de-Windsor, a second phase of the 100-ha Fraser Point Project near Lac St. Francois, and the 50-ha John's Pond near St. Jean-sur-Richelieu.

Major projects planned for 1983 are new developments such as the Vaudray Project, Lac-Ste-Anne, Ile-aux-Oies, and the Nicolet Project, the last a project surveyed last year on a Department of National Defence ballistics testing-range in the Trois-Rivieres area.

Maritimes

The Maritimes construction program in 1983 will consist of 21 new projects and two carried over from 1982, for a total of 874 ha of new habitat. Project improvement work will include level-ditching and cookie-cutter work on eight areas.

In New Brunswick, the construction of a weir and fishway to control water levels at the Newcastle Creek Project, northwest of Fredericton, will complete that project, bringing into operation a total of 117 ha and 8 shoreline-km. It is the second phase of the project that started last year with the construction of a smaller 6-ha compartment.

Located on the Chignecto Isthmus near the border of New Brunswick and Nova Scotia, the Amherst Marsh Project, undergoing several phases of construction over the past few years, will be made completely operational in the spring of 1983, adding 1530 ha of waterfowl habitat to the inventory of DU-developed wetlands in Nova Scotia.

In other 1983 activities, maintenance will be performed on 23 older projects, and new opportunities for wetland development will be investigated by DU Canada staff, who will carry out 88 biological and 63 engineering reconnaissances. Negotiations with governments and landowners are underway in all four Atlantic provinces on new projects to be announced during 1983.

1983 budget

Income

Requested from Ducks Unlimited, Inc.	$29 000 000
Contributors' revenue	1 700 000
Miscellaneous	120 000
Add 1982 under-expenditure	106 000
Total income, 1983	$30 926 000

Expenditure

Development of waterfowl habitat	$25 050 000
Operation and maintenance of habitat areas	2 783 000
Waterfowl population surveys	309 000
Public Relations and Contributor Services	1 856 000
Planning and control	928 000
Total expenditure	$30 926 000

Report

WORLD WILDLIFE FUND

Objectives

The World Wildlife Fund (WWF) is a network of 27 national organizations around the world, which has now raised over $120 million in support of more than 3000 wildlife conservation projects. Since 1961, WWF has helped save more than 100 bird and mammal species, nearly half of which were on the brink of extinction. It has created or supported 260 national parks.

The fundamental purpose of WWF Canada is to conserve wild animals, plants and habitats for their own sake and for the long-term benefit of mankind. WWF Canada gives priority to:

(1) wildlife species or habitats that are rare, threatened, endangered, or extirpated;

(2) wildlife species or populations that deserve special conservation action because of their significance as a natural resource;

(3) conservation concerns in the Canadian Arctic, an area identified for priority action by the "World conservation strategy".

1982 results

Endangered species

- 24 contracts for status reports on candidate species were funded through WWF for the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

- 35 mountain caribou were collared with radio-transmitters to determine their habitat, range, and population dynamics in relation to wolves in the Spatsizi Wilderness Park, BC.

- Data from 22 radio-collared wolves and 34 coyotes in Riding Mountain Park are being used for scientifically sound management of these species elsewhere in Canada.

- 3 pairs of swift foxes produced seven offspring at a site for reintroducing this species into Canada.

- Information gathered from carcasses of over 100 commercially trapped wolverines, plus data from radio-collared live animals, will be used to suggest a wolverine conservation plan for the Yukon.

- Critical habitat of the endangered Vancouver Island marmot was surveyed for re-introduction of the species in the wild.

- 359 Burrowing Owls were confirmed in Manitoba; 102 young owls were banded to help remove this species from the "threatened" category in Canada.

- 112 Burrowing Owls were banded and colour-marked, six were radio-tracked, to determine movement and behaviour for future conservation programs in Saskatchewan.

- 58 northern Peregrine Falcons were sighted during spring migration in Alberta, with signs of an encouraging 1st-year survival of young birds.

- Six areas of Algonquin Park were surveyed by 24 observers to assess the success of the peregrine re-introduction program in Ontario.

- 5000 newsletters, 500 participant guides, 1000 species report forms, 15 000 observation cards, 500 booklets, and 1000 pamphlets will be published in support of the "Ontario bird atlas" project.

- Because of field work supported by WWF, the Piping Plover was discovered to be endangered in Manitoba, and nesting areas were protected.

- 34 rare western hognose snakes were captured, examined, marked, and released; seven were radio-tagged to determine their habitat requirements for protection.

- 80 rare northern prairie skinks were captured and marked to gather the first information about their behaviour and habitat needs for protection in southwestern Manitoba.

- Despite a live-trapping survey and identification of nesting areas, no eastern spiny soft-shelled turtles were found in eastern Lake Ontario.

- 1000 posters, outlining how to watch whales from boats and planes without harassing them, were placed along the St. Lawrence River in Quebec.

- Work proceeded on a rapid, sensitive, and inexpensive way of detecting a salmon fish-hatchery disease in Quebec.

- Surplus leatherback turtle eggs were gathered from Surinam by a Canadian scientist to see whether temperature during incubation determines the sex of the hatchlings.

- $10 000-worth of equipment will be provided to an anti-poaching squad in Zambia that has already arrested over 800 poachers of black rhino and elephants.

Arctic

- $742 500 was committed to a 3-year WWF program, "Whales beneath the ice", to conserve arctic whales.

- 185 polar bears were captured, marked, and released to assist in the effort to protect their denning area near Hudson Bay, and to determine reproductive rates.

- Seven counts per day, 6 days per week for 7 weeks, were done for conservation of beluga whales in the Churchill River estuary.

- 63 adult harp seals taken by Inuit hunters from Pangnirtung and Grise Fiord were examined to give a new data on the reproduction and population status of this controversial species.

- Four WWF researchers protected and observed 13 Ross' Gulls attempting to nest successfuly at Churchill, Man.

- A 3-year study reported visiting 22 Peregrine Falcon nests in northern Quebec; 30 young were counted in 12 nests, the population was stable, and four captive-bred young were released to the wild.

- Work went ahead on developing an arctic international wildlife range, particularly for the Porcupine caribou herd, between Alaska and the Yukon.

- A 15-member team, representing four universities and two federal agencies, gathered wildlife data for protection of a high arctic oasis on Ellesmere Island.

- Nearly 50 environmentally significant areas were identified for protection in the Northwest Territories.

Wildlife habitat

- 6 years of field observations were prepared in a manuscript describing the conservation needs of the birds of eastern Lake Superior.

- The ecology of 157 black gum trees was documented to report on the regeneration and conservation of this and other rare tree species in southern Ontario.

- Several native species of grasses, shrubs, and trees were planted to rehabilitate Great Lakes sand dunes.

- Fire is being used to improve wildlife habitat in fresh-water marshes of New Brunswick, so that they are more useful conservation areas.

- 35 frog species and 27 snake species were identified by a Canadian expert in an area of Brazil never surveyed before, for protection in future national parks.

- A 286-ha nature reserve was protected in Colombia as a source of wild plants and animals for nearby areas being destroyed by forestry and agriculture.

Environmental impact

- 42 grizzlies were captured a total of 63 times, 32 fitted with radio-collars, to help us learn how to minimize the negative impacts of logging, mining, and gas exploration.

- Surveys were flown to determine critical habitat of woodland caribou threatened by logging in northern Ontario.

- 174 days were spent in the field determining the effect of forest fires on woodland caribou in southeastern Manitoba.

- 100 posters were placed in five Toronto office buildings, resulting in a 70% reduction in lighting and a 30% reduction in deaths and injuries to migratory birds.

- 450 lakes were surveyed in Ontario to determine the effects of acid rain on the Common Loon.

Education

- 200 original wildlife education kits sold out, and four film-strip kits, each containing three film-strips and a teacher's guide, were marketed in schools across Canada.

- Publications and reports unique to WWF were made available through a small wildlife reference library.

- A wetlands education kit was produced and distributed to over 200 schools in Ontario.

- A series of booklets in Inuktitut and English, summarizing scientific research on arctic wildlife, is being made available to Inuit communities.

- Community leaders on the remote lower North Shore of Quebec formed their first wildlife society and led conservation education programs for their threatened marine-bird populations.

- Over 1000 students have been reached in the Bay of Fundy region of New Brunswick by a professional naturalist with a conservation message for that area.

- 75 elementary school-teachers and 2500 students piloted an education program for conservation of tropical rain-forests in Costa Rica.

- A video-cassette recorder, display units, and a closed-circuit TV surveillance system were funded at the world-famous Wildfowl Trust in England.

Report

HABITAT GUIDELINES
Recommendation No. 13

S.C. Curtis
Chairman

Delegates to the 46th Federal-Provincial Wildlife Conference (FPWC) in Whitehorse, June 1982, agreed on a recommendation relating to the development of "Habitat guidelines for Canada", an exercise that had its genesis at the 43rd FPWC at Regina in 1979.

Recommendation No. 13 (Habitat guidelines)

Whereas the 46th conference acknowledges and supports the efforts that have been made towards developing "An approach to manage wildlife habitat in Canada", and

whereas the current momentum should not be lost,

therefore it is recommended that the Task Force that has been established meet to debate, review, and refine the present document tabled at the 46th Federal-Provincial Wildlife Conference, and to continue development of approaches for habitat protection which could be implemented by the various levels of government, or by the private sector, independently or jointly with government, and

that the Task Force report back to the delegates before next year's conference.

On 4 August 1982, following the Whitehorse conference, letters were sent out to all provincial and territorial wildlife directors and to all Habitat Strategy Task Force members, requesting comments on the "Approach to manage wildlife habitat in Canada" document, with the specific request for input on the four strategies identified in Section 3.0 of that document. Although reminders were sent, as of 20 December 1982, six provinces had still not responded. An additional letter brought in four more responses.

Comments on the "Approach"

The replies were varied, but generally supportive. There was a general consensus that the approach was acceptable, and that the four strategies defined in the document were appropriate. There were four substantive replies that provided some thoughtful commentary and suggested certain constructive modifications.

One member felt that problems 1 and 4 and associated strategies (relating to identification of habitat problems and habitat protection priorities respectively) could be combined, and suggested the inclusion of a fifth problem to read: "Lack of information about habitat requirements of some species, and ways to increase productivity of these habitats to perpetuate wildlife", and went on further to outline a strategy and approaches. The same member felt that the Task Force should identify some priorities to consider within each action. In this

connection, another individual had problems dealing with habitat in isolation from the wildlife resource.

Another member felt that possible omissions in strategies might involve:

- control of use of habitat, which is already in hand,

- research into alternatives to "natural" habitat,

- restoration of habitat.

In a similar vein, a third member felt that the four problems and strategies did not go far enough, although they were well written. He suggested a further step with a strategy that might read: "Implement new habitat initiatives on a provincial, regional, and national level".

Other replies were more direct statements relating to continued involvement in the exercise. One province wanted to opt out of the entire exercise, primarily because of manpower and financial constraints, and their view that habitat management was a provincial responsibility, which they were already addressing. Several other provinces also referred to their own on-going habitat protection exercises, which made their participation in the national exercise somewhat redundant. They indicated moral support and co-operation, but fell short of active involvement in the exercise.

In conclusion, although a meaningful participation and/or response rate proved difficult to achieve, the overall response was in a positive tone, and the modifications that were suggested were thoughtful and constructive.

Complex task

Certainly, one of the difficulties experienced in attempting to formulate a collective approach to conserve wildlife habitat in Canada was the lack of specificity of the problem to be addressed by the strategy. The Oxford dictionary defines "habitat" as "the locality in which a plant or animal naturally grows or lives". Strictly speaking, this means that habitat is defined by the requirements of the species that use it. For a single species or population, "habitat" goals may thus be defined in a reasonably straight-forward fashion--hence the success of salmon enhancement programs discussed by Dr. Larkin in his keynote address at the 44th FPWC. However, the National Habitat Strategy Steering Committee quickly discovered that a single-species habitat protection strategy cannot necessarily be readily adapted to a generalized wildlife habitat strategy. What is good for ducks may not necessarily be good for deer, grouse, or grosbeaks.

If we consider "habitat" as indicating or designating a kind of locality or site (in terms of vegetation and physical structure), such as cattail marsh, short-grass prairie, etc. (an "ecosystem", if you prefer it), then the issue is no longer wildlife management but land-use management. It almost goes without saying that land-use issues and land-use decisions are complex and political, involving many other government agencies than those charged with the responsibility for the management of wildlife.

Given the necessary involvement and agreement of such diverse government agencies, formulation of a truly national strategy for habitat management that is both

comprehensive and effective, as well as acceptable to all jurisdictions, is a nearly insurmountable task. A number of the parties that provided comments on the 1982 version of the "Approach to manage wildlife habitat in Canada", indicated that the strategies included "did not go far enough" or were "too watered down". However, the reality is that, to be accepted by the senior levels of each jurisdiction, the strategy quite obviously must be very carefully worded, general, and lacking in specific recommended actions that would in any way constrain existing operating procedures.

Proposed outcome

Owing in large measure to the responses received, and the overall loss of momentum, it was decided not to protract the exercise any further at this stage. With the concurrence of the current conference delegates, I recommend that the report tabled last year at the 46th FPWC, together with a summary of the review of the report, be accepted as the final product of the Steering Committee. I further recommend that the committees struck to develop a "National habitat strategy" be dissolved.

The Steering Committee members have concluded that the likely pay-offs to be derived from continuing the present exercise are small, and probably would do little to protect habitat in Canada, unless significant new funding was found. With that realization, it was decided to forego the expense of holding a meeting of the Task Force. A future conference, whose theme again focuses on habitat protection, may wish to reconsider the concept of a "National wildlife habitat strategy" or, more importantly and efficaciously, a "National wildlife habitat heritage fund".

The recently produced "Guidelines for wildlife policy in Canada" detail a number of actions for governments to consider for ensuring the maintenance of wildlife habitat. As there is considerable overlap between those guidelines and those included in "An approach to manage wildlife habitat in Canada", it would seem most efficient at this stage to monitor the implementation of the wildlife guidelines, and to terminate the "National wildlife habitat strategy" exercise. That is not to suggest that the needs for concerted action in habitat protection have diminished. Indeed, the needs are greater than ever, but the current climate seems to favour increasing individual provincial efforts rather than the development of an overall national approach.

If the habitat strategy exercise of the FPWC has helped to focus attention on the critical issue of habitat protection in Canada, it has served a useful purpose. During the period since the 43rd FPWC in Regina (1979), most jurisdictions have greatly intensified their efforts in the area of habitat protection--most notably Ontario, Quebec, Saskatchewan, and the federal government. The thrust of the Regina conference has not been lost, and Dr. Larkin's admonishments to get on with the job of habitat protection have been taken to heart.

As an aid to any future attempts to develop a co-ordinated national approach to habitat protection, a copy of all the documents, correspondence, questionnaire results, etc. generated during the course of the exercise will be filed with the Conference Secretary.

I would like to thank all members of the Steering Committee, and Task Force members, for their co-operation and work. It has been a pleasure, if not an unqualified success.

Report

STEERING COMMITTEE ON A NATIONAL WILDLIFE STRATEGY

J.A. Keith
Chairman

The February 1982 draft, "A wildlife strategy for Canada", was discussed at the 46th Federal-Provincial Wildlife Conference. Those comments, and others made in writing to the committee, were reviewed by an ad hoc group on the eve of the Wildlife Ministers' Conference in September. The group consisted of R. MacLennan (Saskatchewan), H. Monaghan (Northwest Territories), J.D. Roseborough (Ontario), D.C. Surrendi (Alberta), and J.A. Keith (Canada). The group agreed on a series of changes to the February 1982 text that would accommodate the comments.

These changes were presented to ministers the following day and all were accepted. The only discussion between ministers was on the title, with a shortened version of Ontario's proposal being adopted: "Guidelines for wildlife policy in Canada". In this manner, the final text was adopted by the Wildlife Ministers' Conference on 30 September 1982. At that conference, the federal government volunteered to produce the text as a publication, and the ministers agreed to share the costs according to the CCREM formula.

The booklet was produced this spring, and the first printing of 3500 in English and 750 in French distributed. A second printing has been required. Copies are available from the territorial, provincial, and federal wildlife agencies.

The adoption of the text by ministers completed the task assigned to the Steering Committee by the Program Committee of the 44th conference. The Steering Committee members were K.A. Brynaert, D. Neave, J.D. Roseborough, and L. Whistance-Smith. The committee is particularly indebted to David Munro, who drafted and redrafted the text, and contributed many excellent ideas.

During Steering Committee meetings, the need for a means of encouraging implementation of the proposals that we were preparing was often mentioned. In making this final report on behalf of the committee, may I suggest that the conference consider how it could best encourage implementation of the "Guidelines for wildlife policy in Canada" between now and the 1988 evaluation of the "Guidelines", to which the conference is committed.

Report (program highlights)

CANADIAN WILDLIFE SERVICE

Migratory Birds Conservation Program

This program is the largest within CWS, and encompasses a broad range of activities directed towards the conservation and management of migratory bird species. Total resources dedicated to the program in 1982-83 were about 190 person-years and $10.5 million.

Harvest management

In 1982-83, a total of 466 000 migratory game bird hunting permits were sold, approximately the same as in 1981-82. The only significant change was in Ontario, where there was a noticeable increase in the number of hunters.

This was the fourth year of the program of stabilized hunting regulations in Canada. Regulations were stabilized by agreement with the provinces and the US federal and state governments to assess the impact of hunting regulations on game-bird populations. In Canada, the primary focus has been on the Prairies, where intensified survey and banding programs have been initiated together with a major study of hunters' performance.

CWS participated in funding the Baffin Region Inuit Association study to assess the harvest of wildlife by each Inuit community in the eastern Arctic. This information will prove invaluable to the management of important migratory bird populations. CWS also helped to launch a similar major study of the Keewatin Inuit Association in central Northwest Territories. This was the 1st year of a project which will last at least 3 years. In 1982-83, the results of the first major native harvesting study were published for the Cree of northern Quebec, and discussions have begun towards implementation of the guaranteed level of harvest provisions as specified in the James Bay and Northern Quebec Agreement.

In 1979, Canada and the US government signed a Protocol to amend the Migratory Birds Convention to allow a regulated spring hunt by native subsistence hunters in Canada. To date, the Protocol has not been ratified by the US Senate, and it was therefore yet to take effect in either country in 1982. CWS and the US Fish and Wildlife Service agreed to develop a "negotiation report", which will specify in more detail how the Protocol will be implemented in each country and, it is hoped, will satisfy the requirements of the US Senate. The negotiation report should be prepared in 1983 following a period of consultations.

Habitat protection

In 1982, Canada was host to the International Waterfowl Research Bureau (IWRB) annual meeting, and took the opportunity to announce that we were dedicating 14 new areas as Wetlands of International Importance pursuant to the terms of the RAMSAR Convention. The sites encompass some 10.6 million ha, and put Canada first among nations in its commitment to protect major wetlands. (See Table 1.)

Table 1. First list of Canadian wetlands designated as of International Importance

Site	Status	Approx. area (ha)
Mary's Point NWA, NB	National wildlife area	1 200
Cap Tourmente NWA, Que.*	National wildlife area	2 200
Long Point NWA, Ont.	National wildlife area	13 730
Delta Marsh, Man.	Provincial Crown land	23 000
Last Mountain Lake, Sask.	Migratory bird sanctuary and wildlife area	15 600
Whooping Crane Summer Range, Alta. and NWT	In and adjacent to Wood Buffalo National Park	1 689 500
Peace-Athabasca Delta, Alta.	Within Wood Buffalo National Park	321 300
Hay-Zama Lakes, Alta.	Alberta Fish and Wildlife Crown Reservation	321 300
Alaksen NWA, BC	National wildlife area	520
Old Crow Flats, YT	Federal Crown land	617 000
Polar Bear Pass NWA, Bathurst Island, NWT	Federal Crown land	296 000
Queen Maud Gulf MBS, Keewatin and Mackenzie, NWT	Migratory bird sanctuary	6 200 000
Rasmussen Lowlands, Keewatin, NWT	Federal Crown land	300 000
McConnel River MBS, Keewatin, NWT	Migratory bird sanctuary	32 800
Dewey Soper MBS, Franklin, NWT	Migratory bird sanctuary	815 900
Total	15 sites	10 650 050

* Nominated in 1981

The small CWS land acquisition budget was bolstered by contributions from Ducks Unlimited (DU) in 1982. Most of the activity was confined to in-filling of existing National Wildlife Areas (NWAs) at Stalwart, Baie de l'Ile Verte, Lac St. François, and Port L'Hébert, but one new project was initiated at Iles de la Giradeau in Quebec. The total area acquired was approximately 557 ha.

Canada also entered its first formal agreements with DU for the development and management of NWAs. Management agreements were signed for two areas in the Atlantic Region, two in the Quebec Region, and one in Ontario. Management plans were prepared for each of these areas, and good progress was made in the preparation of management plans for all NWAs. The management plan for Long Point NWA was completed.

CWS began a process of objectively rating and ranking habitats of extreme importance to migratory birds that may be protected through acquisition. A rating scheme was developed for southern Canada and is currently being tested. For the Northwest Territories and Yukon, CWS participated in the development of the publication, "DOE areas of interest in the North", which identified 136 sites of special importance to migratory birds. In 1983, CWS plans to publish a list of sites that it may be interested in managing as NWAs or sanctuaries.

The Wetland Mapping and Designation Program marked its 3rd year by completing the mapping and rating of wetlands in Nova Scotia and Prince Edward Island. In Ontario, the 1st edition of an evaluation scheme for southern Ontario wetlands was completed. In 1983, CWS will fund continued testing of the capabilities and limitations of the system, while other agencies and groups within the province are beginning implementation.

In Prairie Canada, the continued loss of small wetlands and associated uplands due to agricultural practices is now having a noticeable impact on several important duck populations, including Mallard, Pintail, and Blue-winged Teal. It is now obvious that, unless CWS and other groups and agencies resolve to find and take remedial measures, these duck populations will continue to decline and will be likely to maintain themselves at well below historical levels.

The federal government will be reviewing available options and determining what additional steps it can take to address this and other important habitat protection problems in 1983.

"Waterfowl management plan"

CWS and sister provincial agencies made some progress towards the ultimate goal of developing a joint "North American waterfowl management plan". A new schedule was developed for completion of various specified steps in Canada by the Wildlife Ministers' Conference. Dr. Macaulay of DU is serving on an inter-change program to co-ordinate completion of the task.

"Value of wildlife" study

The federal and provincial governments and some other conservation groups sponsored a Statistics Canada "Survey of the value of wildlife to Canadians" in 1982. A total of 76 000 questionnaires were completed and analysis of these data continued through 1982-83. The results will formally be presented at the 1983 Federal-Provincial Wildlife Conference.

Latin-American Program

Now in its 3rd year, this program is beginning to assume a shape. Its objective is to undertake joint projects with Latin-American and Caribbean countries to enhance the conservation of birds shared by Canada and those countries. In 1982-83, a variety of projects were sponsored including: preparation of an atlas of shorebirds in South America, winter ecology of Common Terns in Venezuela, demonstrations of cannon-netting techniques in Brazil, and an inventory of bird species in the Antilles. A formal letter of arrangement for co-operative work was signed with Brazil, and several more are anticipated in 1983.

Atlantic Region

Studies of the breeding and feeding ecology of seabirds continued in Hudson Strait, on the Labrador coast, and in east Newfoundland. Data assembly and processing for the revised atlas of pelagic distribution of seabirds made considerable progress in the latter part of the year. Investigations of the feeding ecology and population turnover of migrant shorebirds in the area of proposed tidal power developments continued; nearly 2000 shorebirds were banded in August and September. A study of the feeding ecology of sea ducks wintering off southeastern Newfoundland was initiated.

Population surveys of breeding marine birds were continued in Nova Scotia and southwestern New Brunswick, with emphasis on eiders and terns. Monitoring of waterfowl breeding populations in the Maritimes, on an experimental scale, was begun. The scope of waterfowl banding in Labrador was expanded; although initial attempts were less successful than anticipated, the basis has been laid for more productive operations in the coming year.

The wetland inventories and atlases for Nova Scotia and Prince Edward Island were nearing completion, despite interminable delays with computerization of the data. A start was made on similar work in New Brunswick. Resource inventories continued on several NWAs, with emphasis on waterfowl and other marsh birds at Shepody and Chignecto NWAs, and on vegetation of brackish impoundments at Wallace Bay and Cape Jourimain NWAs. Land assembly continued at Port Joli NWA.

Quebec Region

The 5-year survey of waterfowl nesting in the sanctuaries along the North Shore of the Gulf of St. Lawrence was repeated for the 12th time since 1925.

Because of the increased interest in the Black Duck in eastern North America, an effort was made to band more of this species than previously. About three times more Black Ducks were banded than in previous years.

Studies to trace Greater Snow Geese during their migratory stops along the St. Lawrence River, as well as studies to look at the effects of grazing by the geese on regeneration of the American bulrush in the Cap Tourmente NWA wetlands, were continued.

Ontario Region

Full public consultation on the draft management plan for Long Point NWA led to a final plan incorporating the results of the consultation. A number of open-house sessions were held, so that various interest groups, or other members of the public, could interact with regional habitat staff responsible for the management of Long Point. The initial open house in April 1982 featured extensive media coverage--radio, TV, and local newspapers--and was attended by regional CWS managers as well as by the Director General, B. Tétreault.

The nesting population of Ring-billed Gulls continued to increase rapidly in southern Ontario. CWS staff responded to an increasing number of complaints and public enquiries about gulls, including damage to tomato crops, earthworm depletion, and flight safety problems at Ontario airports. In addition to issuing scare or kill permits to a number of farmers and airport managers, CWS prepared a public information brochure on gull biology and management. Progress was made in 1982 in achieving relief from gull nuisance problems at specific sites through the installation of overhead wires.

In co-operation with the Ontario Ministry of Natural Resources, and with input from Lands Directorate, a wetland evaluation system for southern Ontario was developed, field tested, and presented to the Ontario government. The evaluation system, which will be a major element in the Ontario wetland policy, assesses the biological attributes, social features, hydrology, and special features of any particular wetland, and can produce a ranking of wetlands based on their overall value. Further field testing is scheduled for 1983-84.

CWS provided guidance, advice, and financial assistance to the Ontario Breeding Bird Atlas project, which finished its 2nd year of operation. The project, sponsored by the Federation of Ontario Naturalists, uses the contributions of a network of volunteer ornithologists across Canada. The field work will continue for an additional 3 years, with a major atlas to be produced at its termination. Knowledge of the status of migratory birds nesting in Ontario will be very significantly improved. Waterfowl breeding-pair surveys were carried out by helicopter in four, 100-km on each side, survey blocks. The resulting information is used for improving continental management of waterfowl stocks.

Long-term studies of the impacts of boreal developments, particularly forest harvesting techniques, on migratory bird populations continue in northern Ontario, with most of the work centred on the Manitouwadge area. From this study, CWS has been able to have some influence on the attitudes of the forest industry, particularly gaining acceptance of the notion that migratory birds can play a significant role in the control of forest insect pests.

Western and Northern Region

As part of the continuing efforts to protect and conserve the Whooping Crane, CWS carried out aerial surveys in 1982 to monitor cranes and nests in or near Wood Buffalo National Park; 17 nests (plus one suspected renest) were found. Single eggs were removed from 16 nests in late May, as part of a co-operative US-Canada foster-parent management program, and were sent to Grays Lake National Wildlife Refuge in Idaho. Of 16 eggs, 14 were placed under Greater Sandhill Cranes at Grays Lake, and two were given to the Patuxent Research Center in Maryland. The

latter two eggs hatched successfully, while eight of the 14 Canadian eggs hatched in Idaho. Of these eight, only four chicks reached the flight stage. Seven juveniles were colour-banded in or near Wood Buffalo National Park during August. Six of these birds were equipped with radio transmitters; two succumbed to wolf predation.

As in 1981, CWS co-operated with the US Fish and Wildlife Service in a fall-migration tracking project. Four radio-equipped juveniles were monitored during various parts of their southward migration between Wood Buffalo National Park and Aransas National Wildlife Refuge, Texas. Six juveniles (including one un-banded bird whose hatching location is unknown) safely arrived at Aransas. Two chicks, however, died on the Texas refuge during the winter. As of March 1983, 71 Whooping Cranes comprise the Wood Buffalo-Aransas population.

The Peregrine Falcon experimental releases were expanded with the addition of two new release sites in the Maritimes and one new site at Cap Tourmente. A total of 77 captive-raised birds were available for release or captive breeding, and were distributed across Canada to eight provinces and the two territories. Aside from the breeding success, the program achieved very promising results in experimental pairing, which will be followed up in 1983. If successful, the new pairing methods should result in increased production for the duration of the project. The first and second drafts of a "Canadian peregrine recovery plan" were written and edited and circulated to all provinces and regions for input and revision.

Migratory bird research has focused on the relationship between populations and their habitats. Research was conducted at the St. Denis NWA on factors affecting the productivity of breeding dabbling ducks. The importance of environmental factors to the welfare of Mallards was assessed in a study of their physiological condition during drought and non-drought years. Habitat utilization by migratory and breeding shorebirds at Last Mountain Lake was studied to determine the types of areas required for their species. The impact of agricultural changes to the landscape on songbird populations in the aspen parkland was evaluated. Studies on crop damage caused by field-feeding waterfowl were initiated last fall in an attempt to reduce this chronic problem.

The Migratory Birds Population Management Section evaluated the status and distribution of major game-bird populations. The section designed and implemented a regional waterfowl production monitoring program, and assessed the status of waterfowl production habitat. The section continued operational programs for assessing waterfowl mortality and calculating the distribution of harvest between Canada and the United States. The program to assess Western and Northern Region hunting regulations was augmented by the implementation of several Canada-US Fish and Wildlife Service co-operative ventures aimed at evaluating North American duck hunting.

Pacific and Yukon Region

Increased emphasis on coastal birds and seabirds has resulted in the publication of a comprehensive atlas of west-coast seabirds. Field work for shorebird studies has also been completed and will make a significant scientific contribution. Recent initiatives in forest-bird investigations have been recognized throughout the Pacific northwest.

Once again, activities in the Creston Valley have been very successful, with another excellent operational year on the management area. A comprehensive management strategy for the area has been completed and accepted by the public.

Wildlife Research and Conservation Program

Headquarters

Secretariat services were provided to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and to the Canadian Council on Ecological Areas (CCEA).

After many months of negotiations and an outlay of $115 000 by Environment Canada, the end came to Canada's one and only racoon dog fur-farm in December 1982, when all animals were killed and pelted. Further importations of the species into Canada are now prohibited except under federal permit.

With the incentive given by the potentially disastrous importation of racoon dogs, a concerted effort was made to develop a new Wildlife Export-Import Act. Substantial agreement among all provinces, territories, and the federal government has been reached, and it looks as though, at last, the resolution of this long-standing issue is at hand.

Discussions have started once again to try to find an acceptable form of agreement with respect to the international Porcupine caribou herd.

In the field of humane trapping, the Canadian General Standards Board reached agreement on standards for mechanically powered, trigger-activated, humane trapping devices. It is expected that the standards will be certified by the Canadian Standards Council in 1983. We believe these to be the first standards in the world for humane trapping devices. Canada has now proposed to the International Organization for Standardization (ISO) that international standards be developed, based on the Canadian model. CWS has also been an active participant in the group charged with establishing the Fur Institute of Canada.

Canada was the 1983 recipient of the Wildlife Conservation Award of the Safari Club International. The Hon. John Roberts, Minister of the Environment, accepted the award on behalf of all Canadian wildlife agencies at a ceremony in Las Vegas, Nevada in April 1983.

In concert with the provinces and territories, a review was undertaken of the species listed in the appendices to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Plans to delist several species, because they do not meet the criteria for listing, were presented to a public hearing on the subject in Ottawa, in November 1982. It was the first public hearing held on CITES, and attracted attention from a number of NGOs. It is anticipated that further public hearings will become a regular part of future Canadian planning with respect to CITES.

"A national policy on wildlife" was the theme of both the 44th and 45th Federal-Provincial Wildlife Conferences. CWS is pleased to have been able to participate with the provinces, territories, and several NGOs in translating those theme discussions into a text, which was approved by the Wildlife Ministers' Conference

in September 1982. The resulting publication, "Guidelines for wildlife policy in Canada", represents a significant milestone in the history of wildlife conservation in this country, but it will require the concerted efforts of governments and citizens to see that action ensues. The first evaluation of the guidelines is slated for 1987.

Atlantic Region

Co-operation was continued with Newfoundland in research on the George River caribou herd. As part of a predator study, over 50 wolf carcasses were analyzed for sex, age, reproduction, and condition. In co-operation with the provinces of Nova Scotia and New Brunswick, and Parks Canada, six young Peregrine Falcons were successfully released at two historic nesting sites at the head of the Bay of Fundy. Another reintroduction project, again in co-operation with Parks Canada, led to the successful release of pine marten in Terra Nova National Park. The marten were removed from one of the few remaining areas containing small populations of the species on the island of Newfoundland. That area is presently threated by logging operations.

With over 162 000 ha of forest land sprayed for spruce budworm in New Brunswick in 1982, continued efforts were made to monitor and evaluate the effects of the chemicals on migratory birds. Research on the inhibitory effects of the pesticides on brain cholinesterase in birds has contributed to the technique being accepted as a standard in pesticide monitoring programs.

Preliminary results of a 2-year study of plantations in New Brunswick have indicated that numbers and species of wildlife in plantations up to 20 years old are not significantly different from naturally regenerating stands. The results were not conclusive, however, since earlier plantations were not managed as intensively as the more recent ones. Studies will continue in 1983-84, using radio telemetry.

Ontario Region

Forestry is a major industry and land use in central and northern Ontario, and CWS continued research on the effects of forest cutting on the boreal mammal community. It has also worked with provincial wildlife and forestry agencies, non-governmental groups, and the wood products industry to organize a national symposium on forestry and wildlife management. The purpose of the symposium, which is scheduled for May 1984, is to promote the integration of forestry and wildlife management in Canada.

Western and Northern Region

Polar bear studies

The study of the reproductive ecology of polar bears in western Hudson Bay continued through its 3rd year with excellent results. The ecological significance of the Churchill dump as a supplemental food source to bears that feed there is being compared with bears that do not, as part of long-term population studies in that area.

Nineteen polar bears were fitted with conventional radio-collars in the Beaufort Sea as part of a co-operative program with the US Fish and Wildlife Service and the Northwest Territories Wildlife Service.

Field studies of the Dundas polynya were continued in order to observe the behavioral and ecological relationships between polar bears, seals, and walruses. A study was completed on the use of underwater vocalizations for studying the distribution of wintering pinnipeds in the High Arctic. Monitoring of seal populations in relation to industrial activity continued in the Beaufort Sea, Amundsen Gulf, and Prince Albert Sound.

Caribou research

The year 1982 marked the commencement of a new 5-year study that will assess the effects of forest fires on the movements and condition of caribou on their winter range in southern Mackenzie District. The study is being done under the Canada-Northwest Territories co-operative agreement for research through the authority of the Canada Wildlife Act. Funding is from two federal departments, but valuable field assistance is contributed by the Fort Smith Hunters' and Trappers' Association. The past 2 years have seen especially heavy burns of caribou winter range, and the study is timely as a consequence.

A 2nd year of the study of mortality of juvenile caribou from the Beverly herd was completed, and plans were made for a 3rd year of investigation. This study, conducted jointly with personnel from the NWT Wildlife Service, demonstrated that predation by wolves is a significant factor in the mortality of newly born caribou calves.

Rare and endangered species

There have been six known mortalities of the original 28 wood bison transplanted into the Nahanni River Valley of the Northwest Territories in June 1980, of which four have been man-caused. During 1982-83, a group of 12 bison wintered in the vicinity of Fort Liard, and another group of four near Nahanni Butte. Although it is not known if any of the four calves born in 1982 survived the winter, it appears that the wood bison have established a home range in the region. In December 1982, it was reported that seven wood bison that moved to British Columbia in 1980 were observed just north of Fort Nelson.

Approval in principle was reached for transfers of wood bison to Alberta and the Yukon Territory. Transfers to holding facilities in both jurisdictions could occur within the next 2 years.

The proposal for introduction of wood bison into the Interlake region of Manitoba was postponed because of lack of funds. The proposal may be revived in co-operation with the Department of Indian and Northern Affairs, the Manitoba Wildlife Branch, and the Waterhen Indian Band.

The reintroduction of the swift fox into southeastern Alberta was postponed because the province of Alberta refused approval for the planned release. There are about a dozen foxes and their offspring in pens awaiting that approval, so that they can be released into the wild in the Manyberries district.

The introduction of swift foxes into Manitoba and Saskatchewan has been more successful in planning, but the actual introduction must await the selection of suitable habitat in those provinces, and the habituation of captive foxes to the release sites for a period of about 6 months.

Research in national parks

An inventory was taken of the small mammals of Elk Island National Park. Surveys were extensive and covered a wide range of species.

Riding Mountain National Park wolf and coyote studies were continued with help from outside funding. The objectives were to extend the program over time, so that predator/prey responses could be studied under variable conditions within an area of no human consumption of ungulates.

A review of the status of bison in Wood Buffalo National Park was carried out in conjunction with the park staff. The project involved extensive reviews of the data base to evaluate the history, seasonal distribution, and effects of environmental factors on changes in numbers of the spectacular resource within this northern park.

Limnology projects were carried out in Riding Mountain, Kootenay, Glacier, Mount Revelstoke, and Jasper national parks. Emphasis on these projects related to faunal surveys in streams and lakes, and fisheries management.

Final reports on biophysical studies for Banff and Jasper national parks were completed. Similar inventories are in progress in Kootenay, Revelstoke, and Glacier national parks. Planning was undertaken for a workshop on bear management problems in national parks.

Planning for the continuation of prescribed burn studies in Prince Albert National Park has been completed, and field work will be carried out in 1983-84.

Wildlife Pathology and Parasitology

Co-operative studies were carried out on caribou-calf mortality on the calving grounds of the Beverly herd, and on the reproductive condition and health status of that herd on its winter range.

Several outbreaks of disease and mortality caused by parasites and micro-organisms were investigated.

Requests from CWS, Parks Canada, and other governmental and non-governmental agencies were responded to with advice and assistance on diseases and parasites of wildlife and their control, techniques for chemical restraint, and transportation, accommodation, and relocation of wildlife.

Baseline studies of parasitism in caribou and wolf populations were continued.

Wildlife toxicology

Headquarters

Revised guidelines on the use and acceptability of oil-spill dispersants were completed with input from CWS. On the research side of this project, studies on the effect of ingested oil on seabirds showed the induction of anemia in Herring Gulls and Puffins exposed to Prudhoe Bay crude oil. It appears that the primary mechanism of toxicity is via an effect on circulating red blood cells. The results of this study have been accepted for publication in "Science".

A Registry of Congenital Anomalies in colonial fish-eating birds has been established as a monitor of tetratogenic substances in the aquatic environment. The data on approximately 250 000 chicks, provided by researchers and banders, are being computerized. Indicator species have been selected that provide good geographic coverage, and have been handled in sufficient numbers to provide a meaningful sample. These data will be subjected to detailed epidemiological analyses using methods employed by public health agencies. To date, eight distinct types of anomalies have been reported, and it would appear that an occurrence of 1 in 20 000 could be considered as a background level. Episodes where the occurrence exceeded this rate by 100 to 200 times have been reported in Lake Ontario, the Green Bay region of Lake Michigan, and in Long Island Sound.

On the international scene, the final report of the Organization for Economic Co-operation and Development (OECD) Hazard Assessment Working Part on Natural Environment Effects has been accepted by the Chemicals Group of OECD. The Data Interpretation Guides for the eco-toxicological tests have been edited after national comments had been received. Dr. Peakall was invited by the Royal Swedish Academy of Sciences to take part in a workshop to develop a list of global environmental priorities for the 1980s, both for research and management. A synopsis of this meeting is to be published in "Ambio" shortly.

Ontario Region

CWS continued to monitor the level of toxic substances, namely a variety of organo-chlorine compounds, in the eggs of Herring Gulls from the five Great Lakes. Trends continue downwards in most chemicals and on most lakes. Lake Superior has presented a dilemma, however, because levels have not tapered off at the same rate as in the lower lakes, and reproduction in many of the gull colonies there has been disastrous for 2 years in a row. We are now conducting tests to confirm the presence of several new toxicants, and this spring will conduct a detailed study to identify the cause of reproductive failure.

Western and Northern Region

The 2nd year of a 3-year study was completed to determine if SO_2 from sour-gas extraction plants and acid-rain SO_4 would depress concentrations of selenium in forage plants consumed by wild herbivores. Selenium data for wood-bison forages were analyzed. The analysis gave new insight into the potential for selenium-deficiency diseases in wildlife in western Canada.

New projects were started concerning organo-chlorine contamination in grebes in the Prairies, the effects of herbicides on food quality of wild herbivores, and the attractiveness to birds of dimethoate bran baits for grasshopper control.

Environmental Chemistry

Dioxins continued to be the principal interest of the Environmental Chemistry Section. Eggs of several piscivorous species were screened for the presence of tetra- to octa-chlorodibenzodioxins, including Great Blue Herons from British Columbia, Red-necked Grebes from Manitoba, coho salmon and Herring Gulls from Ontario, Herring Gulls from the Bay of Fundy, and a Bald Eagle from Labrador. The toxic 2,3,7,8-TCDD isomer was found in all samples at levels ranging from 8 to 264 parts per trillion. The Great Blue Heron eggs also contained detectable amounts of higher chlorinated dioxins, which may have originated from chlorophenols used in the forest products industry. A joint project between CWS HQ, CWS Pacific Region, and Prof. Rappe of the University of Umea, Sweden has been approved for 1983-84 to study this hypothesis through more extensive analysis of heron eggs and prey species.

The accumulation of organo-chlorines and heavy metals in arctic marine food chains was studied in a joint project with the NWT Wildlife Service through analysis of polar-bear livers, collected by Inuit hunters in the central Arctic from Tuktoyaktuk to Lancaster Sound. Relatively uniform contamination by PCBs and cyclodiene-type pesticides was found, particularly those compounds and their metabolites related to technical chlordane. Levels of DDT-related compounds appeared to have declined significantly since a similar survey was performed by CWS in the early 1970s. Long-range transport of persistent pesticides that have replaced DDT is therefore occurring in the Arctic by atmospheric deposition or ocean currents. Distribution of heavy metals in polar-bear livers was less uniform than that of organo-chlorines, probably reflecting more localized geological conditions. Mercury levels were highest (up to 200 ppm) in the Beaufort Sea and Melville Island areas, and cadmium levels were highest in the Lancaster Sound area, but always less than 1 ppm. Selenium concentrations were highly correlated to those of mercury, which probably protects the bears from mercury toxicity.

Long-range transport of airborne pollutants (LRTAP)

The wildlife research under LRTAP was begun in 1980 to examine the changes in food availability and habitat quality caused by acid deposition, and to follow the response of wildlife in terms of numbers and diversity. The patterns of waterbird distribution in relation to water chemistry parameters have been studied in Ontario and Quebec. Based on interim findings, it appears that some species, such as the Black Duck, may prefer less acidic habitats, while the Goldeneye tends to select the more acid, fishless lakes. Acid conditions cause increased metal solubility and mobility, and studies are being carried out on the levels of metals in wild mammals in acidified areas. As part of its program, an extensive literature review on the occurrence of metals in wild mammals is being undertaken.

Because of the potential for sulphur to depress the availability of selenium (a trace-element essential to nutrition) experiments are continuing to measure the dose-response relationship between acid-rain sulphate and selenium levels in soils and plants. A well documented effect of acid rain is the leaching of aluminum into the runoff that enters streams and lakes. While the impact of excessive aluminum on fish has prompted considerable study, the influence on other biota is less well understood as, for example, the potential for uptake

by insects consumed by birds. A study of the effects of aluminum on the growth of juvenile Ring Doves is near completion, and experiments to measure changes in productivity and egg porosity are underway.

The working groups, set up under the US-Canada Memorandum of Intent on Transboundary Air Pollution, completed their third and final reports in late 1982. CWS contributed sections on the biological impacts of LRTAP to the Working Group 1 report. A Federal-Provincial LRTAP Research and Monitoring Co-ordinating Committee (RMCC) has been set up to continue the exchange of information on the research program, and to establish the Canadian position for further negotiations on trans-boundary air pollution with the USA. CWS has members nominated to the Aquatic Effects, Terrestrial Effects, and Health subgroups of RMCC.

Ontario Region

Further field data were collected to determine the possible effects of acid rain on waterfowl populations in northern Ontario. The first phase of a predictive model was developed, based on waterfowl data from the 1980, 1981, and 1982 nesting seasons. Further testing and refinement of the hypotheses developed will occur in 1983 in an area significantly impacted by acid rain.

In addition, an examination of food-chain relationships has revealed that aquatic invertebrate composition is tied closely to the presence/absence of minnows, which in turn are affected by pH regimes. Waterfowl that rely heavily on invertebrates respond somewhat differently to pH shifts than do those that rely principally on fish.

Western and Northern Region

Separate projects to determine if SO_2 or acid-rain SO_4 would depress foliar concentrations of selenium, and change plant concentrations of other elements under field conditions, were conducted for the 2nd out of 3 years planned. The status of these projects was reported in a paper entitled, "The effect of SO_2 on food quality for wild herbivores" (Proc. Symp. Acid-forming Emissions in Alberta and their Ecological Consequences) and in a CWS manuscript report entitled, "Acid-rain SO_4 and food quality for wild herbivores".

Interpretation program

Atlantic Region

There are no wildlife interpretation centres (WICs) in the Atlantic Region, although planning was undertaken during the year for interpretation programs for the Atlantic Wildlife Region, the Atlantic Administrative Region, Chignecto NWA, and northeastern New Brunswick. Projects will begin in 1983. The Atlantic Region program will concentrate on NWAs and will be very mobile.

Quebec Region

Interpretation activities were concentrated on three fronts:

(1) Priority was given to programs which were presented at the two WICs -

(a) At Cap Tourmente, about 91 000 persons visited the NWA. Of those, 40 000 benefited from the services of naturalists who offered them guided walks, informal talks, or information at the centre. In mid October, the new exhibit hall at the WIC was officially opened by the Hon. John Roberts.

(b) At Percé, seasonal naturalists welcomed 67 000 visitors at the WIC, on the beach, or at l'Ile Bonaventure. Work has been underway since September on remodelling the exhibit hall.

(2) Satellite information programs at Pointe de l'Est and at Baie de l'Ile Verte NWAs were offered during the summer under the Student Employment Program. Another team of students conducted a feasibility study of offering an interpretation program at Lac Saint-François NWA.

(3) The Regional Interpretation Section participated in two extremely popular shows in Montreal: Le Salon du Camping in April and Le Salon des Sciences et de la Technologie in May. More than 250 000 visitors saw the CWS exhibit; 15 000 of those were personally contacted.

Ontario Region

At the Wye Marsh WIC, about 80 km north of Toronto, CWS operated a year-round program for school groups and for the general public. During the summer months, visitors participated in guided walks through fields and forest, and canoe excursions into a large cattail marsh. Of particular interest was a demonstration of radio-telemetry to track the movements of several Blanding's turtles. This is a large but secretive and uncommon species, whose habits are poorly understood. The centre has become a major tourist attraction in central Ontario, and receives between 40 000 and 45 000 visitors each year.

Early in 1983, a group of local residents incorporated to form a non-profit organization to support and augment the CWS program at Wye Marsh. The "Friends of Wye Marsh" will operate a sales area at the centre and, through receipts from sales and grants, contribute money and time to a variety of events, demonstrations, and research projects in conjunction with the centre's regular activities. Similar schemes have proven to be valuable adjuncts to the operation of national parks in Canada and the USA. Besides offering financial and entrepreneurial opportunities not otherwise available, the co-operating associations expand environmental awareness and focus support from the local community.

Western and Northern Region

In 1982-83, it was a busy year at the Prairie WIC at Webb, Sask. The most significant events included the following:

(1) Program delivery - Visits to the centre were up by 15% to 22 169, despite a 10% drop in tourism in the region. School tours were up by 10%, and our off-site campground events and Sunday specials were up by 40% or more.

Changes in media included the completion of the "Trail guide", a self-guiding brochure for the outer-loop trail. "What's outside", a check-list of common

flora and fauna, was also published. Two new displays, a live black-tailed prairie dog display and a marsh aquarium, were added to the display hall. New displays are under development for the short-loop trail. A Prairie WIC colouring book is currently at the printers.

Program feedback was collected through the new "National visitors' survey", which will be analyzed by computer.

(2) Visitors' services - Significant development was carried out by students working under the Summer Employment Program. Three shade shelters and a waterline were added to the picnic site, and many visual improvements were made. Ramps, walks, and railings for the handicapped were started, but remain to be completed.

(3) Habitat improvement - To ensure that visitors have the maximum chance to experience wildlife, several projects were begun. Trees and shrubs were planted as the first of a 3-year planting plan. Four bale-nest islands in Goose Lake were used by Canada Geese. A number of bird boxes were erected.

(4) Staff - At the peak of the season, 22 persons were employed directly or indirectly at the centre: three indeterminate staff, eight naturalists and a clerical position on a contract with Bufo Inc., four naturalists on the Career-oriented Summer Employment Program, and one co-ordinator and five students on the Summer Employment Program.

(5) Co-operation - The Prairie WIC co-operated with the Saskatchewan Natural History Society in the operation of the bookshop at the centre. The Swift Current Wildlife Federation responded to our request and provided 16 large, round, flax bales for new nest islands. Former Prairie WIC senior naturalists, Chris Harris, worked out of the centre in a Parks Canada term position developing signage for the proposed Grasslands National Park.

(6) Planning - A "Prairie WIC marketing plan" was completed, as were the "Prairie WIC maintenance management plan" and the "Prairie wildlife regional plan". Several other planning goals carry over into the new year.

(7) Marketing - The three border-crossing information bureau displays were refurbished for the 1982 summer season, and two of those have now been completely rebuilt in cedar. The fourth highway billboard and a 12-foot gopher directional sign were added along the Trans-Canada Highway. Small signs advertising the centre were erected in seven picnic sites along the Trans-Canada. The Prairie WIC erected displays at the South Saskatchewan Wildlife Federation convention in Moose Jaw, and at "Showcase '83", an educational exposition and conference for 5900 teachers.

Regional interpretation

A concept plan for interpreting the arctic region was prepared under contract by the Faculty of Environmental Design, University of Calgary.

Pacific and Yukon Region

The number of persons visiting the Creston WIC was 8% higher from May to August in 1982 than during the previous year. However, the centre was closed for

renovations from November to March, and the total number of visitors dropped from 27 000 to about 26 200. A paved access route to the centre for handicapped visitors is now available.

Interpretation plans for Alaksen NWA and the Marshall-Stevenson Unit of Qualicum NWA were completed, and will be implemented in 1983-84.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

For an account of participation by Canada and CWS in the Convention, see the CITES report in these transactions.

RECOMMENDATIONS OF THE 47TH FEDERAL-PROVINCIAL WILDLIFE CONFERENCE

Recommendation No. 1 (Appreciation for hospitality)

That the conference express its appreciation to the Alberta Fish and Wildlife Division of the Department of Energy and Natural Resources and to the Hon. Don Sparrow for their hospitality in hosting a barbecue for all delegates and their families on the evening of 29 June at the Red Barn; and that a letter of appreciation be sent to the Alberta Wildlife Park for a tour of their facilities for all attendees at the barbecue.

Recommendation No. 2 (Appreciation for hospitality)

That the conference express its appreciation to the Canadian Wildlife Service of Environment Canada for their hospitality in hosting a reception on the evening of 27 June to welcome all delegates and their families to the 47th Federal-Provincial Wildlife Conference.

Recommendation No. 3 (Appreciation for hospitality)

That the conference express its appreciation to the Alberta Fish and Game Association and the Canadian Wildlife Federation for their hospitality in hosting a barbecue for delegates and families on the evening of 28 June at Sherwood Park.

Recommendation No. 4 (Appreciation for hospitality)

That the conference express its appreciation to Ducks Unlimited Canada for their hospitality in hosting a breakfast for all delegates on the morning of 29 June at the Hotel Macdonald.

Recommendation No. 5 (Appreciation to non-governmental organizations)

Whereas many non-governmental organizations were represented at the 47th Federal-Provincial Wildlife Conference by their appointed delegates, it is recommended that these organizations be thanked for their valuable participation.

Recommendation No. 6 (Regret for Absence of British Columbia)

That the conference acknowledge with regret the absence of representation from the Province of British Columbia.

Recommendation No. 7 (Fur Institute of Canada)

Whereas the Task Force established under Recommendation No. 11 of the 1981 Federal-Provincial Wildlife Conference has revised the proposal for a Fur Institute of Canada in accordance with direction received from the September 1982 Wildlife Minister's Meeting, and

whereas the revised proposal has gained the approval of the non-governmental sectors of the Canadian fur industry, and

whereas private-sector funding has been pledged for humane trap development programs under the aegis of the Fur Institute of Canada, and

whereas it is essential to the welfare of the Canadian fur industry that the Fur Institute of Canada become operational before the autumn of 1983,

therefore it is recommended that the Fur Institute Task Force:

(1) modify the "Articles of incorporation" as needed to meet legal requirements and adjustments recommended by the various wildlife jurisdictions across Canada, provided these are within the spirit and intent of the May 1983 "Fur Institute of Canada" proposal,

(2) secure the remaining funding commitments required for the administration of the institute and the operation of its programs, and

(3) establish the Fur Institute of Canada, using the current Task Force members as applicants, with the aim of having the institute operational before 30 September 1983.

Recommendation No. 8 (Co-operation in habitat enhancement)

Whereas past Federal-Provincial Wildlife Conferences have encouraged more active fiscal participation by the private sector in habitat preservation and enhancement, and

whereas recognition of the magnitude of effort by industry and private conservation organizations in habitat protection and development is now becoming apparent, and

whereas this conference has clearly identified the potential benefits of greater integration between governmental agencies, industry, and the private organizations, and

whereas there has not been the expected growth in habitat programs because the increased efforts by industry and private conservation organizations appear to have been offset by an overall contraction in government spending,

therefore, it is recommended that federal and provincial wildlife agencies accelerate their efforts in developing co-operative arrangements, with industry and/or private conservation organizations as partners, to help stem further declines in governments' fiscal participation.

Recommendation No. 9 (Value of wildlife in the North)

Whereas a feasibility study report prepared by Dr. P.J. Usher has been submitted to the Wildlife Directors' Committee in accordance with Recommendation No. 16 (1982 FPWC), and

whereas this report proposes an approach to measure commercial and subsistence wildlife values among native peoples and recreational wildlife values among non-native people of the Yukon and Northwest Territories,

therefore it is recommended that the examination be extended to address the feasibility of measuring these values among native and non-native peoples residing in northern British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Newfoundland, and the Yukon Territory. A committee consisting of a representative from each of these provinces, the Yukon Territory, and the World Wildlife Fund Canada will be created under the chairmanship of the Canadian Wildlife Service. The committee will meet with Dr. Usher on 3 August 1983 to assess the nature of relevant data on the matter and report to the Wildlife Directors' Committee in September 1983 to decide further action. The benefiting provinces, the Yukon, and World Wildlife Fund Canada will contribute up to $1000 each to defray costs for Dr. Usher's services and for an analysis of the coverage of the Statistics Canada sample in remote areas of the provinces.

Note: Northwest Territories abstained.

Recommendation No. 10 ("Comprehensive analysis of the 1981 national survey on the importance of wildlife to Canadians")

Whereas Canada's first comprehensive survey on the importance of wildlife to Canadians has been completed, and

whereas the highlights of this survey have been published, and

whereas the nature and extent of the information is of vital importance to governmental and non-governmental wildlife management agencies in Canada, and

whereas a "Proposal for a more comprehensive analysis of the results of the survey on the importance of wildlife to Canadians" has been tabled at this conference,

therefore it is recommended that the proposal be sent to governmental and non-governmental wildlife agencies normally represented at this conference, and that those agencies transmit their written comments on this proposal and the cost-sharing formula to the authors of this proposal by 15 August 1983. The authors will meet in late August 1983 along with representatives of other interested sponsors of the survey to discuss the comments and revise the proposal as required. A revised proposal will be presented to the Wildlife Directors' Committee in September 1983 to decide further action.

Recommendation No. 11 (Habitat guidelines)

Whereas the 46th Federal-Provincial Wildlife Conference, after due consideration of the efforts devoted to this task since its inception at the 43rd Federal-Provincial Wildlife Conference in Regina in 1979, recommended that:

> the Task Force that has been established meet to debate, review, and refine the present document tabled at the 46th Federal-Provincial Wildlife Conference, and to continue development of approaches for habitat protection which

could be implemented by the various levels of government, or by the private sector, independently or jointly with government, and

that the Task Force report back to the delegates before the next year's conference, and

whereas the Task Force Chairman has tabled a report for the 1983 conference delegates, and

whereas that report chronicles the actions undertaken in response to the above recommendation from last year's conference, and

whereas the Task Force Chairman believes that momentum for this exercise has now been lost and that little additional benefit can be derived from a protraction of the initiative, and

whereas the "Guidelines for wildlife policy in Canada" contain or include direct reference to habitat protection and enhancement,

therefore it is recommended that the report tabled last year at the 46th Federal-Provincial Wildlife Conference, together with a summary of the review of the report, be accepted as the final products of the Steering Committee, and

that the committee struck to develop a "National habitat strategy" be dissolved, and

that a copy of the documents, correspondence, questionnaire results, etc. generated during the course of the exercise be filed with the Conference Secretary.

Recommendation No. 12 (Committee on the Status of Endangered Wildlife in Canada, COSEWIC)

Whereas:

(1) COSEWIC has completed more than 5 years of productive activity since the original call for such a body by the Federal-Provincial Wildlife Conference in 1976,

(2) COSEWIC has found it desirable to add plants to its list of concerns,

(3) scientists associated with COSEWIC stress the need for a conceptually sound and consistent basis for determining the status of wildlife and of wildlife habitats,

(4) in national and international fora, COSEWIC represents a collectively defined Canadian commitment and performance criterion, but has been forced to rely heavily on non-governmental funding, and

(5) the 1983 General Meeting of COSEWIC expressed a strong desire to increase the overall efforts and activities of the committee,

therefore it is recommended that the conference:

(1) reaffirm the original mandate of COSEWIC to declare the national status of Canadian species thought to be at risk,

(2) direct COSEWIC to continue work on plants,

(3) encourage COSEWIC to pursue a broad spectrum of financial support, and

(4) urge governments, where and when appropriate, to publicize measures taken to benefit species under their purview that have been assigned status by COSEWIC.

Note: Ontario was opposed.

Recommendation No. 13 (Theme for National Wildlife Week)

It is recommended that the theme for National Wildlife Week in 1984 be "Wildlife and wetlands", and be considered as Part 2 of the comprehensive theme begun last year under the title "Learning about wildlife", by reviewing the role of wetlands and their importance to a wide array of wildlife species and of humans.

Recommendation No. 14 ("Canadian wildlife administration")

Whereas there is a need in Canada for a publication dealing with the administration of wildlife programs,

therefore it is recommended that the Federal-Provincial Wildlife Conference reaffirm its support for the continued annual publication of its report, "Canadian wildlife administration", in order to exchange information on innovative administrative techniques, and to exchange new ideas and policies in the administration of wildlife.

Recommendation No. 15 (Canadian wildlife management institute)

Whereas the Task Force established under Recommendation No. 12 of the 1982 Federal-Provincial Wildlife Conference has completed its mandate, and

whereas the official delegates have agreed that the Task Force recommendations be brought before the 1983 Federal-Provincial Wildlife Conference, and

whereas there is a general consensus among the delegates that wildlife management in Canada is at the cross-roads of a new era in which leadership and participation of non-governmental organizations in the identification and resolution of national wildlife issues is fundamental,

therefore it is recommended that the Task Force established under Recommendation No. 12 of the 1982 conference:

(1) proceed to encourage the formation of a Canadian wildlife management institute which would:

(a) promote the conservation of Canadian wildlife and excellence in the practice of wildlife management, and

(b) as part of its role, sponsor an annual Canadian wildlife conference, and

(2) that whatever interested parties are prepared to sponsor such an institute present a proposal setting out their aims, objectives, and sources of funding, etc. to the 1984 conference.

Recommendation No. 16 (National Wildlife Week)

Whereas the Federal-Provincial Wildlife Conference endorses the Canadian Wildlife Federation's National Wildlife Week program, and the Task Force to examine what is being done has discovered a multitude of ideas and methods to improve the impact of that program,

therefore it is recommended that a committee made up of representatives from Manitoba, Ontario, and Newfoundland, as well as the Canadian Wildlife Federation and two other NGOs at a provincial or national level, complete guidelines for co-ordinated and co-operative ways in which governments and NGOs can deliver that National Wildlife Week program, and

that such guidelines be established and recommended for operation on a test basis as early as 1984.

Recommendation No. 17 (Appreciation of NGOs)

That the conference acknowledge that many NGOs wish to express their sincere thanks and appreciation to the Federal-Provincial Wildlife Conference for being allowed to participate in the conference. A particular thanks should be presented to the government departments that assist the NGOs, thereby enabling them to participate.

Recommendation No. 18 (Appreciation to A.G. Loughrey)

Whereas Alan G. Loughrey has for over 30 years contributed actively to wildlife research and management in Canada and to the work of the Federal-Provincial Wildlife Conference,

therefore the 47th Federal-Provincial Wildlife Conference directs the Secretary to express to Mr. Loughrey its appreciation for his service and best wishes for his forthcoming retirement.

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SUMMARY OF THE 47TH FEDERAL-PROVINCIAL WILDLIFE CONFERENCE

Conference opening

The Chairman of this year's conference was Bob Andrews, Director of Wildlife, Alberta Department of Energy and Natural Resources. Mr. Andrews opened the conference by introducing his Minister, the Hon. Don Sparrow. He pointed out Mr. Sparrow's keen interest in outdoor recreation and wildlife, and that he was an avid shooter. He told of Mr. Sparrow's strong business background, and said he was sure that Alberta would benefit from the very challenging and interesting perspective he brought to public administration.

Mr. Sparrow extended a warm welcome to all delegates. In his address, he highlighted several new wildlife initiatives being undertaken by his department. He said the agenda provided the opportunity for some interesting and productive discussions. He was particularly pleased to see the initiative taken to deal with the review of "our" efforts in wildlife management within the context of the current and foreseeable global economic climate. He stressed that "we will have to do a more effective job of factoring wildlife resource interest into the social-economic fabric of this country".

1. Presentation of the agenda

Introducing the agenda, Mr. Andrews said that, in looking at the theme, one could tell that they were futuristic, looking towards the challenges that they were going to face; essentially in striving to find the balance between the various users' groups, between the various interests and their demands upon wildlife. He pointed out the even bigger challenge that they faced in trying to ensure that wildlife had a place in this land.

There were two last-minute changes in the agenda. Don Robinson, Director, BC Fish and Wildlife Branch, was unable to attend the conference. His paper was given by Hugh Monaghan, Assistant Deputy Minister, NWT Department of Renewable Resources. Lloyd Jones, Top-of-the-World Ranch, Fort Steele, BC, was a late cancellation. Erwin Thiessen, Coutts, Alta., kindly filled in at very short notice.

2. Appointment of Recommendations Committee

Membership of the Recommendations Committee consisted of: R.C. Goulden, Manitoba (Chairman); P. West, CWS (Secretary); A. Smith, Prince Edward Island; J. Patterson, CWS; R.R. MacLennan, Saskatchewan (alternate).

3. Representative to National Waterfowl Advisory Committee

Bert Tétreault, CWS, announced that the official representative to the National Waterfowl Committee meetings in Washington, DC would be R. Andrews, Alberta. The alternate was D. Robinson, British Columbia.

4. Report on action taken on 1982 conference recommendations

Doug Pollock, Conference Secretary, reported that Recommendations Nos. 1 to 5 covered the normal letters of appreciation for hosting various events and to the NGOs for sending representatives to the conference. Letters were sent out.

Recommendation No. 6 concerned letters of regret to the provinces of Quebec and Nova Scotia concerning their absence from the conference. Letters were sent out.

Recommendation No. 7 concerned the use of Endrin and its effects on migratory birds in Canada. CWS carried the concerns and delivered the messages to the US flyway meetings, to the satisfaction of Saskatchewan, which had raised the particular recommendation.

Recommendation No. 8 dealt with CWS leadership in research on polar bears and supported their on-going programs.

Recommendation No. 9 was for the development of a "Forest wildlife symposium". A progress report was included in the "Recommendations report". The arrangements are on schedule. The action will be on-going until it is completely finalized.

Recommendation No. 10 dealt with National Wildlife Week; an evaluation questionnaire was circulated by the Task Force, and it was also on the agenda for Thursday morning. A report is included in these transactions.

Recommendation No. 11 was the theme for National Wildlife Week in 1983, "Learning about wildlife", and it was unanimously accepted.

Recommendation No. 12 concerned a review of the Federal/Provincial Wildlife Conference. It was on the agenda for Thursday. A report is included in these transactions.

Recommendation No. 13 dealt with "Habitat guidelines". The report was distributed at the conference.

Recommendation No. 14 covered publication of "Guidelines for wildlife policy in Canada". The guidelines were presented and distributed to wildlife agencies.

Recommendation No. 15 concerned the Fur Institute of Canada, and the Task Force chairman reported on this recommendation on Tuesday morning. A report is included in these transactions.

Recommendation No. 16 was on the value of wildlife in the North. A contractor was engaged to determine the feasibility of a complementary survey to the "National survey on the value of wildlife resources of northern Canada". A report was presented to the Wildlife Directors' Committee at their semi-annual meeting. Further discussion on whether to proceed or not will be forthcoming.

Recommendation No. 17 concerned the Canadian Committee on Ungulate Management. They had sought support for its continuance, and the delegates unanimously supported that continuance.

Recommendation No. 18 was on COSEWIC and was a two-part recommendation. The first part was to conduct an audit of the first 5 years of operation. That

report was distributed prior to the conference. The second part of the recommendation was to raise dollars to meet the offer by the World Wildlife Fund to match dollar-for-dollar in contributions. A request to raise funds is now in progress.

Recommendation No. 19 dealt with wildlife education. The Canadian Wildlife Federation was encouraged to proceed with the proposal for a national wildlife educational project. A report is included in these transactions.

5. Introduction of guests

This year 145 delegates and guests attended the Edmonton conference; see attendance list in these transactions for names and addresses.

6. US Fish and Wildlife Service update

Dr. F. Eugene Hester, Deputy Director, US Fish and Wildlife Service, presented his agency's report. He noted that they had effected a number of changes in their policy goals in recent months, primarily in the realm of fish and wildlife policy and inland fisheries management. Of particular interest to the delegates were Dr. Hester's comments on waterfowl. Dr. Hester also mentioned a variety of wetland presentation methods being explored. In conclusion, he said that they would do their utmost to serve the resources they held in trust for the mutual benefit of both nations. He looked forward to continued co-operation. A complete report is included in these transactions.

7. Canadian Wildlife Service update

Bert Tétreault, Director General, CWS, highlighted his service's activities during the last year. He made mention of the Task Force which was working to provide a new concept for federal wildlife management. He commented on CWS participation in the new Caribou Management Board. Another important point was the concise action plan Parks Canada and CWS had started working on to protect natural areas north of 60°. Mention was made of international activities engaged in by the service.

He drew attention to work being done on a "Canadian waterfowl management plan". He said they must take the humane trapping issue very seriously, and that CWS would continue to support the creation of the Fur Institute. He commented on federal/provincial co-operation, and stressed that wildlife management in Canada had reached a cross-roads. CWS would be following a somewhat different route, but a challenging one. He invited other wildlife agencies to join CWS and make the "trip" a success. A complete report is included in these transactions.

8. Fur Institute update

Rich Goulden, Task Force chairman, reviewed the action taken to establish a fur institute. He reaffirmed the institute's mandate. What the Task Force had now come up with was a corporate structure which would be autonomous, but with specific objects which, if pursued, would get them where they wanted to go. He suggested that it was now time not only to put their money where our mouth is, but to put their shoulder to the wheel and get on with the job. He then

introduced Arthur Frayling, Chairman, International Fur Trade Federation, from London, England.

Mr. Frayling expressed his federation's interest in the institute. He stressed that the substantial financial offer they had made had to be called up "with the proper credentials by 30 September" at the latest. Both reports are included in these transactions.

9. Value of Wildlife to Canadians - update

Fern Filion, Canadian Wildlife Service, referred to the report prepared by the committee he chaired entitled, "The importance of wildlife to Canadians - Highlights of the 1981 National Survey". He asked delegates to consider whether or not they wanted additional information from the survey, and explained the costs involved. His report is included in these transactions.

10. Keynote speech - Tomorrow: A federal-provincial wildlife management team

Norm Simmons was keynote speaker. He proposed the institution of a federal-provincial wildlife management team. He said it would be a hierarchy of organizations beginning at the provincial/regional level and culminating in the present national Conference of Wildlife Ministers. He suggested that committees would be founded on a planning and assessment format, and there would be a mechanism for well-informed NGO participation. He was confident that other agencies would complement the CWS initiative and usher in a new era of federal-provincial teamwork. The complete report is included in these transactions.

11. Panel - "Is wildlife management unique?"

Tuesday afternoon's panel was chaired by Gordon Kerr, CWS. In introducing the topic, Mr. Kerr said that this panel would be dealing with the "today" situation. He likened that to a case where government carried out wildlife management and said that was today's situation.

Panel members for the session included Robert Scammel, barrister and solicitor, Red Deer, Alberta; Monte Hummel, Executive Director, World Wildlife Fund Canada; Dennis Surrendi, Assistant Deputy Minister, Alberta Fish and Wildlife Division; and Hugh Monaghan, Assistant Deputy Minister, NWT Department of Renewable Resources, who presented Don Robinson's paper in his absence.

Mr. Scammell gave a history of game laws dating back to Biblical times. He warned that the new Canadian Charter of Rights would have an effect on game law. He said: "The charter deals with human freedom, and North American game laws have evolved around a laudable concept of human freedom".

Mr. Hummel said that his argument was that wildlife management was not unique, that the problems facing wildlife management could well be the problems faced by the country as a whole. He commented: "I'm learning that sometimes the policy of being too cautious can be the greatest risk of all".

Mr. Surrendi summarized his report as follows: "The future success of wildlife management will require sound scientific information; a willingness to be

pragmatic and practical in the management application of existing scientific information; clear tough-minded regulation; a realistic recognition of when to abandon a lost cause; a positive and creative approach to working with others to seek ways of giving wildlife a boost wherever we can; and, above all, developing our abilities in the area of strategic planning in order to secure policy commitments from the highest levels of government towards the identification and maintenance of a wildlife resource supply necessary to achieve stated public benefits".

In introducing Don Robinson's paper, Mr. Monaghan said that it was making a real statement when he had to give a paper on restraint and the fellow who wrote it was not able to attend the conference because of restraint.

In his paper, Mr. Robinson stressed that, in his opinion, tight budgets would be beneficial in the long run as they forced them to make choices and find alternatives. He said: "Selection, whether biological, political, or fiscal, works best when mortality is high--this appears to be a price for change and evolution. It is a tough period and I can do no better than quote Dickens: 'It was the worst of times and the best of times'".

The reports of all speakers are included in these transactions.

12. Panel - Industry/wildlife - Can they both benefit?

Wednesday morning's panel was chaired by Tom Beck, Chairman, Environmental Advisory Council of Canada. In his opening remarks, Mr. Beck mentioned his concern over what industry could do to wildlife. He explained that this led to his direct involvement in what industry could do for wildlife. He had found out that a lot of people throughout the continent shared this common interest. He planned to pursue the industry/wildlife interaction beyond the conference--that was something he had developed quite a fascination for.

Dave Neave, Director, Habitat Development and Protection, Alberta Fish and Wildlife Division; Jack Toovey, Chief Forester, BC Forest Products; and Len Mottus, President, Associated Resource Consultants Ltd. were the panelists.

Mr. Neave, in his presentation on government regulatory responsibility, concluded that he supported the concept of less regulation, and that greater emphasis should be placed on co-operative endeavours, where industry and wildlife could both benefit. He also perceived that they were at a cross-roads in habitat management. It was obvious that general revenue funding could not meet the costs of management at the current level of sophistication required in an industrial/agricultural area. He stressed that their success would be related to their continued ability to influence the impact of major financial and land-use institutions within society.

Mr. Toovey stated that foresters and biologists must make every effort to collaborate on real data inventories, which were the bench-marks for realistic planning development. He warned that public demand for fiscal restraint in government would mean less staff and smaller budgets.

Mr. Mottus made the point that, once the best possible use for the land had been defined, each user would have the right to be there, and with that right would

be an obligation to respect the rights of other users. He said that an ideal management system should breed mutual interest through integrated management.

Complete reports on all speakers are included in these transactions.

13. Panel - Public involvement: Present and future

Elmer Kure, Director, Environmental Relations, Alberta Fish and Wildlife Association, chaired Wednesday afternoon's panel. In introducing the panel topic, Mr. Kure said that it was hard to look at the present and future without looking at the past. This was only natural, because they supposedly learned from the past. He said it would be an interesting challenge to see if Indian people, landowners, leaseholders, and naturalists, etc., would all see their interest being served by good wildlife management--or if they would continue to pursue the trend of the 70s. A phrase that was true of the 70s was: "I want it and I want it right now!". He commented that that attitude was not easy to overcome when dealing with managing wildlife.

Panelists were Chief Peter Kelly, Regional Vice-Chief for Ontario, Assembly of First Nations; Dennis Pattinson, President, Canadian Wildlife Federation; Gregg Sheehy, Conservation Director, Canadian Nature Federation; and Erwin Thiessen, Director, Alberta Urban Municipalities Association, who kindly filled in at very short notice to give a rancher's viewpoint.

Chief Kelly outlined Indian law and spoke about aboriginal rights. He said that his people were the first to suffer the consequences of environmental contamination such as mercury, acid rain, and nuclear waste, yet were the last to be involved. As "caretakers of the land", the First Nations were concerned that they be involved in research, policy, and law development, and in any lobby efforts to clean up and protect this land. He stressed that, while all had shared more than a century of conflict, they could move forward in an atmosphere of respect if they recognized their common commitment to this land.

Mr. Pattinson warned wildlife managers to get their act together. He said that if they did not have co-operation, they should get together to cultivate it. He challenged government to lead, follow, or get out of the way.

Mr. Sheehy, in his presentation, spoke of forestry as it related to wildlife. He said that people most concerned with wildlife and government wildlife agencies had a particular responsibility and value in ensuring that wildlife habitat was considered in forest management; he did not see a great deal of initiative from the forestry community in this regard. He also referred to the "Guidelines for wildlife policy in Canada", and said that it would be desirable to have a periodic review of government wildlife activities. The Nature Federation strongly supported the basic concepts of the wildlife policy and would initiate that review.

Mr. Thiessen said that they should respect the landowner; nobody would take care of leased or deeded land any better than the cowboy would. If sportspeople did their part and ranchers did theirs, he thought they were in for a good time.

Complete reports of all speakers are included in these transactions.

14. Discussion of theme for National Wildlife Week

Ken Brynaert presented the Canadian Wildlife Federation's report. He pointed out that, from their perspective, it was one of the more successful years they had had in the past 10 or 12 years. They were apprehensive about the future and the direction and attitude they were encountering with some jurisdictions. Orders in some provinces had been cut in half, and in others entirely cancelled without warning. He said that the reason given for these cut-backs was not the quality of the program, but the lack of funds provided for what was stated to be an outside program. He reiterated that the National Wildlife Week kit was a co-operative program under the jurisdiction of the Federal-Provincial Wildlife Conference. He suggested that the topic for part 2 of the "Learning about wildlife" series be "Wildlife and wetlands".

Laurel Whistance-Smith spoke on behalf of the Steering Committee that reviewed and evaluated National Wildlife Week. She outlined the results of a questionnaire the Task Force had circulated. She proposed that the Task Force produce a final report by September 1983 that would go beyond what was originally requested of them; to produce a set of guidelines for a co-ordinated and co-operative approach that governments and NGOs would use in delivering the National Wildlife Week program.

During the workshop that followed the presentation of these two reports, many suggestions were brought forward re improvements to the program (content, target groups, delivery) and other ways of promoting National Wildlife Week. These two reports and a summary of the workshop are included in these transactions.

15. Project Wild

Great interest was shown in the educational program, Project Wild, outlined by Norm Gaelick. Congratulations were offered both to Mr. Gaelick personally and the Canadian Wildlife Federation for taking the initiative in this program. Mr. Gaelick's report is included in these transactions.

16. Organization of Federal-Provincial Wildlife Conference

Bob Andrews presented the Task Force report and recommendations for the establishment of a "Canadian Wildlife Management Institute". His report and a summary of the discussion period are included in these transactions.

17. Choice of theme for 1984

The theme for 1984 is "Teamwork in wildlife management".

18. Announcement of Program Committee membership for 1984

The 1984 Program Committee will consist of: J.D. Roseborough (Ontario), Chairman; D.K. Pollock (CWS), Secretary; Ontario Regional Director (CWS); A. Magny (Quebec); R.R. MacLennan (Saskatchewan); M. Prime (Nova Scotia); J. Young (Ontario); and representatives of local non-governmental wildlife organizations. The alternate is H. Haswell (New Brunswick).

19. "Canadian wildlife administration"

Bob Bell, Northwest Territories, presented the 1983 edition of "Canadian wildlife administration". He said that the NWT considered the publication very worthwhile. It was their view that this publication was one of the very few real opportunities to show-case Canada's wildlife programs; it provided a forum that must continue to be made available.

Manitoba is to produce the 1984 publication.

20. Highlight reports

Reports submitted by various governmental and non-governmental agencies are included in these transactions.

Lloyd Mayeda distributed copies of the Nature Conservancy's annual reports for 1981 and 1982 at the conference. He spoke briefly on the objectives and plans of the conservancy. The Nature Conservancy of Canada is a national non-profit organization dedicated to the preservation of ecologically significant natural areas, unique natural features, and places of special beauty. It does not hold property acquisitions indefinitely, but transfers them to other conservation organizations or governmental agencies for management and protection. Wetlands, shoreline properties, and areas that provide habitat for a wide diversity of flora and fauna, especially rare and endangered species--these are the priorities of The Nature Conservancy of Canada in the 80s.

21. Recommendations Committee report

This year's Chairman was R.C. Goulden (Manitoba); 18 recommendations were approved by the conference. British Columbia did not have representation at this conference.

22. Points of interest - Recommendations

COSEWIC

R.C. Goulden (Manitoba) said that he would have difficulty accepting the inclusion of invertebrates in COSEWIC's mandate because they were not covered by the Manitoba Wildlife Act or any other legislation for which his department had any authority. Secondly, he pointed out that if funding by the private conservation groups was decreasing, it seemed a strange time to augment COSEWIC's mandate. He was generally happy with the work being done by COSEWIC, but believed that the field for which they were truly held accountable had not been so well covered that they could afford to venture into what were really "pretty uncharted waters". He would not be able to get money from his department to support studies on invertebrates. He agreed that a substantial portion of the funding had been carried by private conservation groups, but if one referred back several years to previous conferences, it might be concluded that that was as it should be. He reminded NGOs of their demands to be given an opportunity to participate meaningfully in wildlife management in Canada, and that he had suggested to them that meaningful participation could only be matched by

meaningful financial contributions. He applauded them for their efforts in COSEWIC, but thought that was what they should be doing. He was not convinced that government had not been carrying its share.

J.D. Roseborough (Ontario) agreed with Mr. Goulden; Ontario would have a difficult time as well because they did not have a mandate to cover invertebrates. They also had a difficult time with plants, but could do it under the Endangered Species Act. Ontario was now spending $62 000 on research status reports, which was similar to the amount provided by the World Wildlife Fund. Mr. Roseborough did not agree that governments should be urged to publicize measures taken to benefit species under their purview that had been assigned status by COSEWIC, unless the species were protected by the Endangered Species Act or had some active management program; Ontario did not want to publicize measures being taken because they did not want people to know where the species could be found. He did not see a need to reaffirm COSEWIC's mandate, and said that Ontario would vote against the proposed recommendation (see Recommendation No. 12).

J.E. Bryant (CWS) pointed out that COSEWIC's mandate did not cover plants, and they had no mandate to go to the public for funding. COSEWIC's mandate was to put the status of species believed to be at risk in Canada into the public realm, so that the public would be aware of the risk and have some understanding of the background; reports were to be made available to the public. Feedback was now coming to COSEWIC, asking what the impact of their work had been; what governments were doing with respect to species for which COSEWIC had declared status. Mr. Bryant said that the public should get some feedback from individual governments on what they were doing, but if measures had to be taken very quietly, without broad public knowledge, that fact in itself might take very useful information back to the public; it would be contrary to the whole concept of COSEWIC to suggest that every detail of action taken should be revealed, if it would result in harm to the endangered species.

R. Andrews (Alberta) supported Mr. Bryant's comments, agreeing that governments should publicize their use of COSEWIC; Alberta intended to reflect COSEWIC's work both in their policy and legislation. He added that, in this time of restraint, the work of this committee and the principles it was furthering should be one of the last items that they should aim at in terms of cuts.

Mr. Roseborough commented that the majority of species listed in the June 1983 COSEWIC report (8 of 12) were Ontario species, and to publicize this information would put a great deal of pressure on Ontario. In his opinion, Ontario was feeling more pressure than other Canadian agencies. Ontario was opposed to Recommendation No. 12.

Co-operation in habitat enhancement

R.C. Goulden (Manitoba) pointed out that it was mentioned over and over again during the conference that the rather substantial upsurge in effort by private conservation organizations and industry in the habitat field was applauded, but this was regrettably matched by an almost equivalent down-turn in financial involvement by governments. He would not say whether that should or should not be the case, but pointed out that the people who had been debating the issue felt that the original intention was that more private money was wanted to help governments with what they were doing, and not necessarily to supplant the government effort.

R.H. Ozanne (Alberta Fish and Game Association) said that Alberta's hunting and fishing population would be putting a proposal, in this same vein, before their government before the end of 1983; it had not been finalized by his organization, but it would be a ways-and-means of doing this (see Recommendation No. 8). He said that government was receding as this effort obtained private money. He also mentioned the problem governments experienced with manpower, and that in times of restraint "wildlife takes the hind-leg". He asked delegates to support the recommendation.

L.H. Mayeda (Nature Conservancy of Canada) encouraged delegates to vote for the recommendation. He pointed out that there might be some instances where the Nature Conservancy could be of assistance in other ways than adding actual funds to the purchase of property, i.e., assisting with negotiations on behalf of, or in conjunction with, governmental agencies and landowners. He said that, while the Nature Conservancy was still in its infancy with respect to its effectiveness, they would be glad to participate and increase their abilities to be useful in both raising money and dealing with the preservation of habitat; they would welcome the opportunity to work with a number of government groups and agencies in order to ensure the protection of habitat.

Value of wildlife in the North

R. Bell (Northwest Territories) stated that Dr. Usher's report actually addressed another point; attempts to develop a methodology for a way-of-life evaluation. Mr. Bell wanted to know whether or not this would be included at this time.

F.L. Filion (CWS) said that because of the complexities of addressing the issue, it was not intended to cover it at this time; also, the cost was prohibitive (see Recommendation No. 9). Northwest Territories abstained on this recommendation.

23. International Association of Fish and Wildlife Agencies

Jack Berryman stated his association's interest in learning more of Canadian viewpoints, problems, and activities. His association was interested in having Canada more actively involved in their affairs. He thanked the conference for inviting him to attend; he found it instructive and educational.

24. Attendance

There were 145 registered participants at this year's conference.

25. Dates of subsequent conferences

The following dates have been confirmed for future conferences:

1984, 18-22 June - Timmins, Ontario,
1985, 25-28 June - Halifax, Nova Scotia,
1986, 16-19 June - Ottawa, Ontario.